

the Portable Companion™

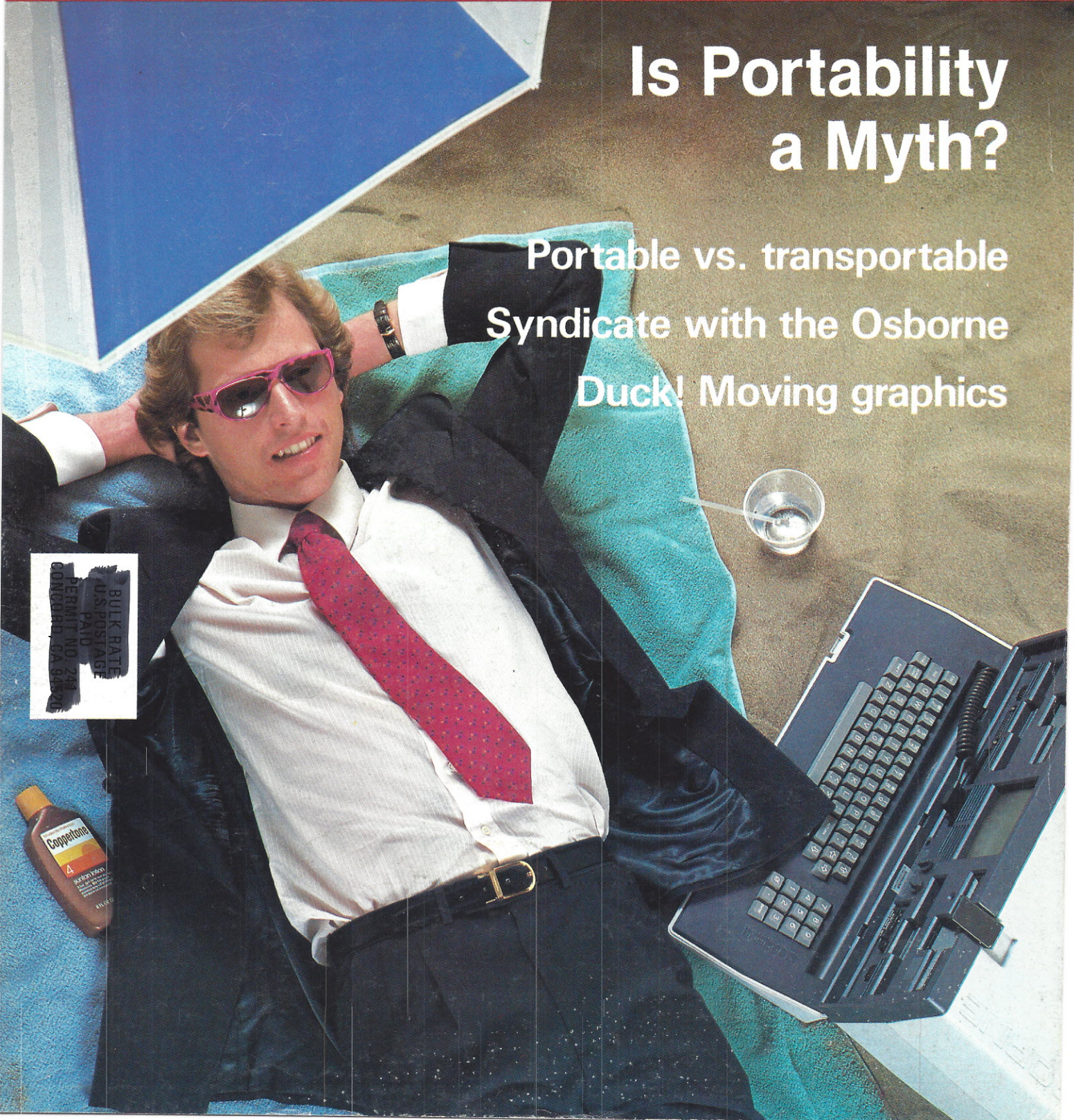
For Osborne Computer Users

April/May 1983

USA \$2.95

Is Portability a Myth?

Portable vs. transportable
Syndicate with the Osborne
Duck! Moving graphics



BULK RATE
U.S. POSTAGE
PAID
PERMIT NO. 241
CONCORD, CA 94520



THE LEADING EDGE IN PRINTERS

ONE GREAT LINE. ONE GREAT WARRANTY.

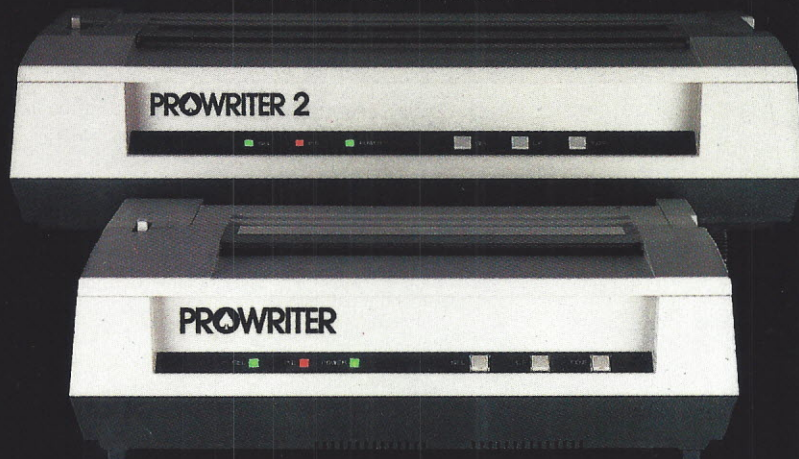
Finally, there's one full family of printers that covers every business or word processing application—all from C. Itoh, a company known for packing more product into less price; and all distributed exclusively by Leading Edge, a company known for searching out and providing that very thing. Which means that one call to one source can get you any printer, any time you need it, for any purpose. All backed by a full years' warranty from Leading Edge. (Try *that* on any other line of printers.)

THE PRO'S.

The Prowriters: business printers—and more. The “more” is a dot-matrix process with more dots. It gives you denser, correspondence quality copy (as opposed to business quality copy, which looks like a bad job of spray-painting).

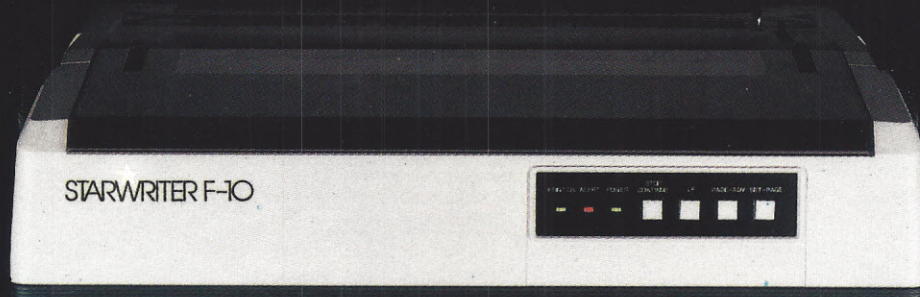
Prowriter: 120 cps. 80 columns dot matrix compressable to 136. 10" carriage. Parallel or serial interface.

Prowriter 2: Same as Prowriter, except 15" carriage allows full 136 columns in normal print mode. Parallel or serial interface.



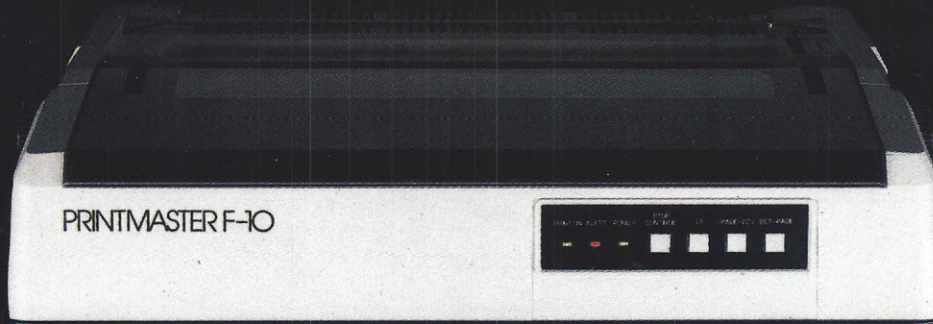
THE STAR.

The Starwriter F-10. In short (or more precisely, in a sleek 6" high, 30-pound unit), it gives you more of just about everything—except bulk and noise—than any other printer in its price range. It's a 40 cps letter-quality daisy-wheel with a bunch of built-in functions to simplify and speed up word processing. It plugs into almost any micro on the market, serial or parallel.



THE MASTER.

The Printmaster F-10. Does all the same good stuff as the Starwriter except, at 55 cps, the Master does it faster.



Distributed Exclusively by Leading Edge Products, Inc., 225 Turnpike Street, Canton, Massachusetts 02021.
Call: toll-free 1-800-343-6833; or in Massachusetts call collect (617) 828-8150. Telex 951-624.

BASIC VS. JRT PASCAL:

A NO-HOLDS-BARRED COMPARISON.

EASE-OF-USE By dividing programs into modules, JRT Pascal makes even very complex programs—of nearly any size—a breeze to manage. Pascal code is *self-documenting*; program sections are identified by meaningful names, not line numbers. Error messages are verbal, not number codes. JRT offers 12 data types (to Basic's 2 or 3), and it has both regular and hex numbers.

POWER For power—the ability to write better, clearer programs, faster—Pascal is the run-away winner. Example: JRT simplifies programming by accomplishing complicated operations (for Basic) with one command:

Basic	JRT Pascal
IF A\$ = "V" OR A\$ = "W" OR A\$ = "X" OR A\$ = "Y" OR A\$ = "Z" THEN...	IF A IN ['V'..'Z'] THEN...

FLEXIBILITY JRT's wide variety of data types reduces programming restrictions. And the data types are not all fixed in size. There are 3 *looping statements* (Basic has 1). With JRT, very large programs can be created and run, because program modules can be spread over many diskettes. Common modules can be used for several programs. Basic generally limits strings to 255 bytes; JRT strings go up to 64K.

EFFICIENCY Whereas Basic relies on a static, inefficient memory map to allocate storage, JRT's *dynamic storage* fills every available main storage area; there's no waste. With Basic, sub-routine modules must be linked together; with JRT, they can be linked—but don't have to be. JRT's more powerful commands run faster; typically, you'll write Pascal programs 3 to 10 times faster than in Basic. *Exclusive:* JRT lets you directly access the CP/M* operating system for better total system control.

NOW... Consider our copy policy. (If you want to make copies, it's OK with us—so long as they're not for re-sale.) Check our astounding price: **\$29.95!**—and *satisfaction is guaranteed—or your money back.* Basic versus JRT Pascal: which comes out on top? Right! The coupon below is for your convenience. Or call. Today.

Here's the real shocker!

Features	Basic	JRT Pascal
Structured programs	No	Yes
Separate compiled modules	"Chaining"	Structured procedures with auto-loading & purging
Arithmetic precision	Usually 6 or 7 digits	14 digits
Indexed files	No	Yes
Maximum string size	255 characters	64,000 characters
Loop statements	1	3
Data types	Usually 2 or 3	12
CASE statement	No	Yes
Introduced	1965	1980
Price	???	\$29.95!

Full support for indexed files

CRT screen formatting & full cursor control

Facilities for formatting printed reports

File variables & GET/PUT

Dynamic arrays

SEARCH procedures for fast table look-up

Extended CASE statements

Random files to 8 megabytes with variable length records

64K dynamic strings

Activity analyzer prints program use histogram

14 digit BCD FLOATING POINT arithmetic

True dynamic storage

Advanced assembly interface

Fast one-step compiler; no link needed

Efficient compiler needs only 85K diskette space

Maximum program size: more than 200,000 lines

More than 200 verbal error messages

Separate compilation of auto-loading external procedures

No limits on procedure size, nesting or recursion

175-page user manual with 3-ring protective plastic binder & 5 1/4" or 8" diskettes

Handy JRT Pascal reference card

Graphing procedures
Statistic procedures



THE COMPLETE PASCAL FOR CP/M.

\$29.95!

JRT/PASCAL 3.0

Send **JRT SYSTEMS** or
to **45 Camino Alto/D2** phone **415/388-0530**
Mill Valley, CA 94941

Here's my \$29.95; please send me JRT Pascal. I understand that if I'm not completely satisfied, I can return it within 30 days—with the sealed diskettes unopened—for a full refund. (Allow 4-6 weeks for shipping.)

I need the 5-1/4" diskettes for ☐ Apple CP/M; ☐ Heath, Hard Sector; ☐ Heath, Soft Sector; ☐ Northstar; ☐ Osborne; ☐ Superbrain; ☐ Televideo; ☐ Xerox 820. I need ☐ 8" SSD diskettes.

Name _____

Address _____

City _____ State _____ Zip _____

☐ Check ☐ C.O.D. ☐ MasterCard ☐ VISA
(CA residents add sales tax. Add \$6 for shipping outside North America.)

Card # _____ Exp. _____

Signature _____

*CP/M is a Digital Research TM.

A 56K CP/M system is required.

Is 42 seconds worth \$10000?



The new Transtar 130 daisy wheel printer generates a full-page letter in 78 seconds. The least expensive 40 cps printer does it in 36. Only 42 seconds difference...for twice the price.

At only \$895, the Transtar 130 letter-quality printer makes speed its only compromise. Shannon-text rated at 16 cps, the Transtar 130 gives you better printing quality than any 40 cps printer. It allows you the full range of word-processing functions such as proportional spacing, superscript, subscript, under-scoring and a true boldface. The 130 is "plug and go" compatible with the best-

selling word processing packages. It's quiet: only 65dB. It's durable. It boasts a unique new autoloader feature that automatically loads paper to one of four pre-selected positions with the touch of a button. And, as if that weren't enough, its end-user warranty runs a full six months—twice that of most of its competitors.

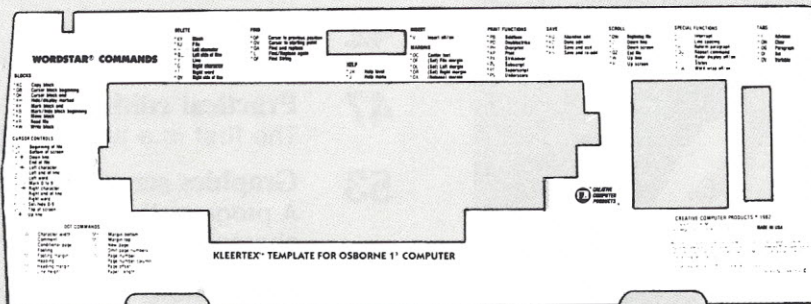
Affordable and loaded with all the features of printers costing twice as much, the Transtar 130 letter-quality printer retails for less than \$900. But it's up to you: Is 42 seconds really worth \$1000?

Transtar

Box C-96975, Bellevue, Washington 98009

**NEW
TIME-SAVER**

IMMEDIATELY VISIBLE PROGRAM COMMANDS for the OSBORNE I™ COMPUTER



- ALPHABETICAL LISTING OF COMMANDS
- EASY TO READ
- QUICK ACCESS
- DURABLE PLASTIC
- NON GLARE SURFACE
- COLOR COORDINATED
- FITS INTO CASE

KLEERTEX® TEMPLATE ONLY \$19.95



**CREATIVE
COMPUTER
PRODUCTS™**

OSBORNE I is a trademark of the Osborne Computer Corporation. WORDSTAR is a registered trademark of the Micro Pro International Corporation. D BASE II is a trademark of Ashton-Tate, INC. M BASIC is a registered trademark of Micro Soft. SUPERCALC is a trademark of Sorcim, INC. Creative Computer Products is an independent company, specializing in Sophisticated Solutions for computer operators.

**CONTACT YOUR LOCAL DEALER
OR MAIL ORDER FORM TO:**

Creative Computer Products
P.O. Box 85152 • MB134
San Diego, CA 92138
(619) 268-0793

CUT HERE

Please send me the following KLEERTEX™ TEMPLATE(S) at \$19.95 each plus \$1.75 postage and handling charge:
(California residents add 6% sales tax.)

___ WORDSTAR® Commands ___ SUPERCALC® Commands ___ D BASE II® Commands ___ M BASIC® Commands

I WANT TO PAY FOR KLEERTEX™ TEMPLATE(S) AS FOLLOWS:

- ☐ Check Enclosed ☐ VISA
☐ Master Card ☐ Money Order

For Model:

- ☐ Beige
☐ Gray

CARD NO. _____ (PLEASE PRINT CLEARLY) EXP. DATE _____

SIGNATURE _____

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

☐ Please send your FREE catalog featuring a host of wonderful timesavers.



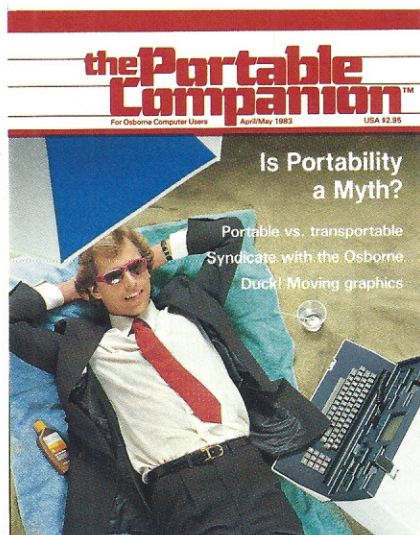
**CREATIVE
COMPUTER
PRODUCTS™**

DEALER INQUIRIES INVITED.
FOR INTERNATIONAL INQUIRIES:
TELEX: 697120
DATA MAX SDG
ATTN: DEPT. 303



© CREATIVE COMPUTER PRODUCTS™ 1982





Writer Peter Aaron squelches the portability controversy currently being bantered about in the industry press in a roguish essay. Page 32



The Osborne 1 battles it out at a recent chess tournament, ending up the micro-victor. Page 59



Duck! Moving graphics . . .
See page 42

FEATURES

- 32 Portable, transportable or ergonomic backache?**
A whimsical essay on the "portability" brouhaha
- 34 Syndicating with your Osborne**
A successful freelance writer points out the value of syndicating your writing via the computer
- 42 Duck** Intermediate
A moving graphics game and challenge for our readers
- 47 Practical editing: Part I** Novice
The first in a two-part series on editing a manuscript
- 53 Graphics screenwriting** Intermediate
A program that writes the Osborne's graphic characters to the screen
- 59 Confessions of an armchair general**
Osborne triumphs at chess tournament
- 61 Technical tips** Novice to Advanced
A round-up of some of the technical questions our readers may be scratching their heads over
- 66 I/O, I/O - Part III** Intermediate
The last in a series of articles on modifying WordStar and interfacing the Osborne to printers
- 74 Saving Your ASCII** Intermediate
Recovering lost WordStar and MBASIC files can be a snap

USER GROUPS

- 76 USER GROUP UPDATE**
- 79 HELPFUL HINTS FOR CP/M AND PIP.HLP**
- 82 WORDSTAR/MAILMERGE TIPS**
- 83 INTEGRATING SUPERCALC FILES WITH WORDSTAR FILES**
- 84 BATTERY-POWERED USE OF THE OSBORNE 1**

DEPARTMENTS

- 9 START UP**
- 11 ADAM OSBORNE**
- 15 LETTERS**
- 20 WIZARD OF OSBORNE**
- 86 NEW PRODUCTS**
- 92 THE PROCESSED WORD**
- 98 CALCAIDS**
- 100 INSIDE/OUTSIDE OSBORNE**
- 102 dBASICS**
- 106 WHOOPS**
- 109 PUZZLER**
- 111 NEXT TIME**
- 112 SOURCES**



COMPILE YOUR BIBLIOGRAPHY™ AUTOMATICALLY

If you're a professional writer, we've just made your job easier.

BIBLIOGRAPHY compares citations in a manuscript with the entries in *your own* card catalog and constructs a bibliography of all entries cited.

Entries are added to the catalog using your text-editor. Each catalog entry has a keyname (for example, author and year of publication), followed by bibliographic information such as the author's name, the title, journal, publisher, and annotations. The entries can be of any length and format.

When preparing the manuscript, just type in the keyname for each reference. BIBLIOGRAPHY constructs a bibliography of

all works cited—alphabetized or numbered, with annotations included or excluded.

BIBLIOGRAPHY can also copy entries from the catalog to footnotes in the manuscript, or replace citations in the manuscript with numbers corresponding to the order in which the works appear in the bibliography.

BIBLIOGRAPHY can handle references to meet the requirements of virtually any professional journal, publisher, or style manual.

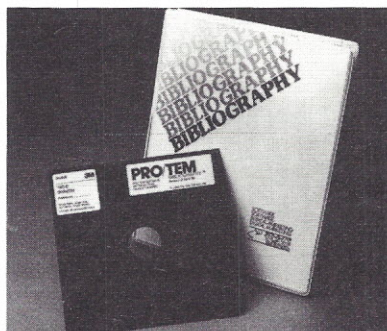
Price is \$125 plus destination charges. For more information, see your computer dealer or contact Digital Marketing directly.

BIBLIOGRAPHY requires CP/M® 2.2, CP/M-86™ or IBM PC DOS and a minimum of 48K RAM. It will work with most word processors, including WordStar, Spellbinder, PeachText and SuperWriter.

Formats: 8" SS/SD, 5¼" Northstar DD, Micropolis Mod III/Vector MZ, Superbrain 3.0, Apple II with CP/M, 5¼" and 8" Xerox 820, Osborne-1, Televideo, IBM PC (specify DOS or CP/M-86), IBM Display-Writer with CP/M-86, KayPro and Micro Decision.

Trademarks: Bibliography—Pro/Tem Software; CP/M and CP/M-86—Digital Research; WordStar—MicroPro Int'l; Spellbinder—Lexisoft; PeachText—Peachtree Software; SuperWriter—Sorcim.

PRO/TEM™



SOFTWARE
SOFTWARE
DIGITAL MARKETING
DIGITAL MARKETING™



DIGITAL MARKETING CORPORATION

2670 CHERRY LANE • WALNUT CREEK • CALIFORNIA • 94596
(415) 938-2880 • Telex 17-1852 (DIGMKTG WNCK)

Dealer inquiries invited. Dealers outside California call
(501) 442-0864. Inside California call (415) 938-2883.

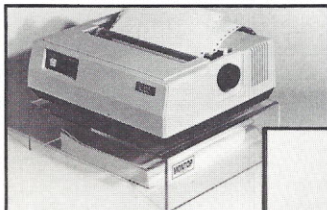


Top your OSBORNE 1™ with a **MONTOP**

MONTOP MONITOR STAND

Custom stand holds monitor firmly in place on top of Osborne 1™. Keeps monitor clear of vent. Computer sits flat—keyboard can be moved around. Saves desk space and puts monitor at easy-to-read angle. Just \$21.95

Also available for your Osborne 1™:



PRINTER STANDS

Stores paper **under** printer and keeps it straight for smoother feedthrough. Sturdy, attractive two sizes.
Small (MX-80, Gemini 10, OKI 80/82, C. Itoh, PMC, NEC, TEC)
 \$29.95 (15" w x 13" d x 4" h)
Large (MX-100, Gemini 15, OKI 83/84, many others)
 \$34.95 (20 1/2" w x 13" d x 4 1/2" h)

ONTOP DUST COVER

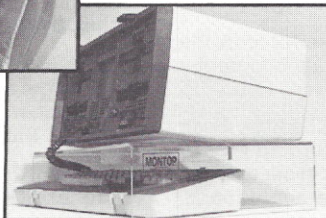
Durable, clear vinyl dust cover protects your investment. Available in two sizes for use with or without monitor. Osborne 1™
 w/monitor \$15.95
 Osborne 1™ only \$13.95



Osborne 1 is a trademark of Osborne Computer Corporation

DOUBLE DECKER

Raised surface allows easier viewing of small screen. Keyboard fits underneath when not in use. Reinforced construction. (Same as Large Printer Stand) \$34.95



SGW offers a full assortment of outstanding accessories for use with your Osborne 1™ computer. Ask for our FREE catalog.

Business office and warehouse:

SGW ENTERPRISES, 722 Genevieve Street, Suite J, Solana Beach, California 92075 619-755-8324

Dealer Inquiries Invited.

Mail to:

SGW ENTERPRISES, P.O. Box 1015, Del Mar, California 92014 619-755-8324

Please send me:

Quantity Item

Total amount enclosed \$

☐ Check enclosed

☐ Money order enclosed

☐ VISA/MASTERCARD #

Expiration Date

Signature

Name

Address

City

State

Zip

Add \$2.50 for shipping & handling per item.
 CA residents add 6% (or 6.5%) sales tax.

the **Portable Companion**™

business manager
Ginger Taylor

editor
Jackie Rae

technical editor
Brad Baldwin

special contributor
Adam Osborne

contributors
Gary Cuevas
Barbara Elman
Dave Gute

production manager
Meredith Ittner

art direction
Roeth/Olson Design Associates

art production
Cynthia Heier
Frank McClellan
Ron Walter

advertising/circulation manager
Deanna D'Zamba

circulation coordinator
Siobhan Stewart

Illustrations by Larry Baumgardner.

Cover art and direction:

Steve Yamaguma and Associates

Cover Photo by Michael Jay

Typesetting: Type Plus, Palo Alto, CA

The Portable Companion is published bimonthly (monthly as of June, 1983) by Osborne Computer Corporation as a tutorial aid for Osborne computer owners.

Subscription requests and change of address notifications should be sent to: Circulation Department, c/o **The Portable Companion**, 26538 Danti Court (Box 20), Hayward, CA 94545 (ISSN 9732-7501). Subscription rate is \$25.00 for 12 issues or \$45.00 for 24 issues. International subscriptions are \$35.00 for Mexico and Canada and \$75.00 elsewhere. Back issues are \$4.00 each including postage and handling (the premiere June/July, 1982 issue is sold out).

The entire contents of this issue of **The Portable Companion**, are copyright 1983 by Osborne Computer Corporation. All rights are reserved and duplication of the contents of this publication in any form or manner without the prior written permission of Osborne Computer Corporation is illegal.

Trademarks: Osborne 1, CalcAids, The Wizard of Osborne and **The Portable Companion**: Osborne Computer Corporation. dBASE II: Ashton-Tate, Inc.

The following are registered trademarks: SuperCalc: Sorcim. MBASIC: Microsoft. CBASIC and CP/M: Digital Research. WordStar: MicroPro International. AMCALL: Microcall Services.

"I Love To Drive My 380Z"

"...And I can drive it at 32 CPS with an Apple, Osborne, TRS 80 and others."

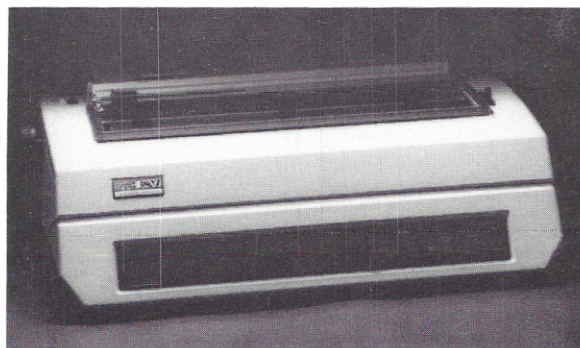
The DTC 380Z: A new standard in advanced technology at a dramatically low price

- 48K buffer for high speed throughput
- Diablo 1640/1650/630 software compatible
- Serial and parallel interfaces
- Serial baud rates to 19.2K
- Automatic baud rate selection
- Four CPU's, no cables, belts, wheels or pulleys
- Letter quality daisy wheel printer
- 12 print styles, 15 languages, 96 char. wheel, standard ribbon
- Automatic bi-directional printing
- Proven reliability 100,000 printer mechanisms produced
- Up to 32 CPS print speed in typical applications
- Interconnecting cables for all major micro-computers
- Automatic proportional spacing
- Parallel 6K bytes per sec. transfer rate
- Optional extras: forms tractor, cut sheet feeder.

MONEY BACK GUARANTEE

IN STOCK • ORDER NOW
VISA • MASTERCARD

800-962-8185
in CA 800-538-9294

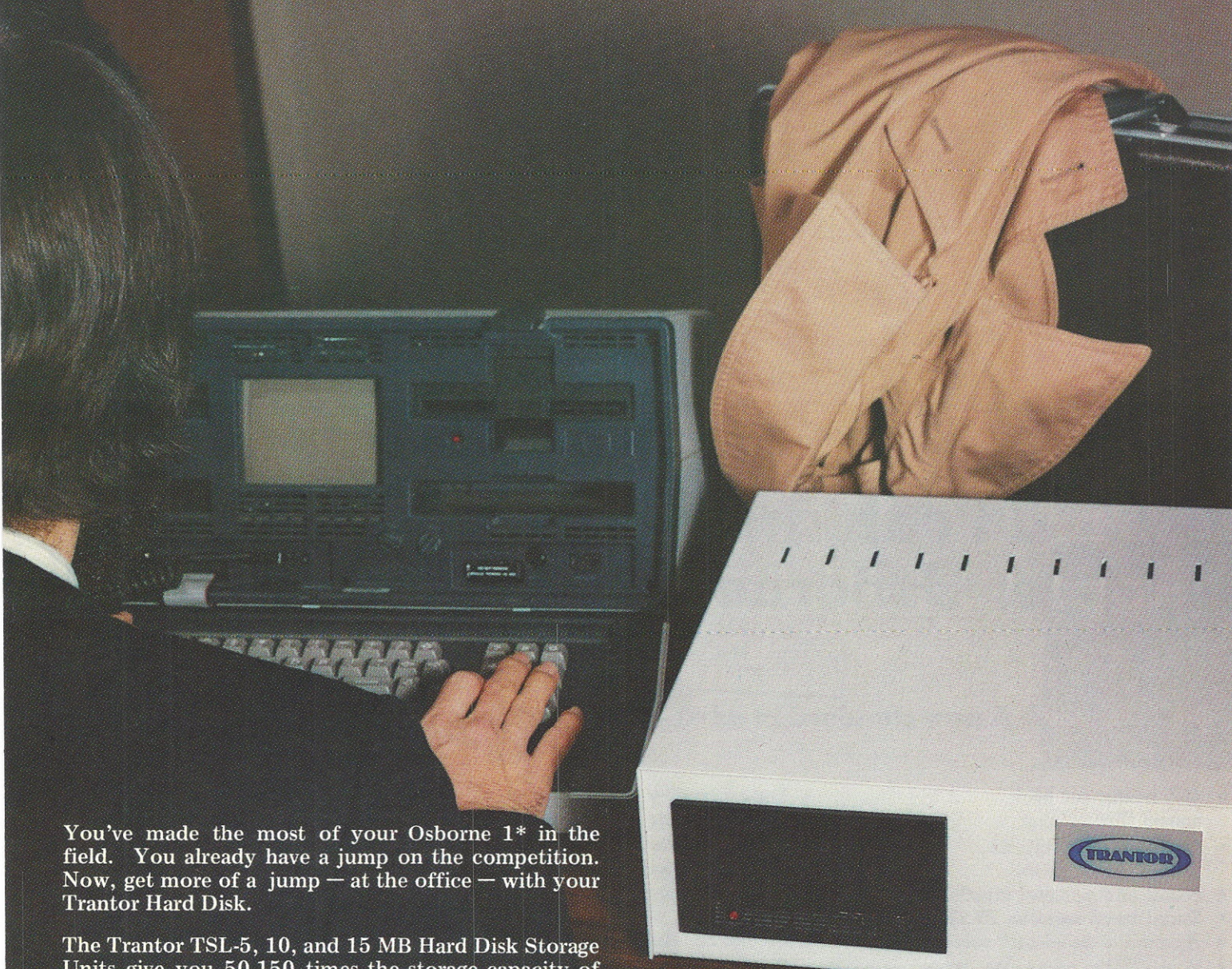


The DTC 380Z
DAISY
Wheel Printer

\$**1359**⁰⁰

DTC Data Terminals & Communications
590 Division St., Campbell, CA 95008

DO MORE WITH A TRANTOR HARD DISK AT THE OFFICE!



You've made the most of your Osborne 1* in the field. You already have a jump on the competition. Now, get more of a jump — at the office — with your Trantor Hard Disk.

The Trantor TSL-5, 10, and 15 MB Hard Disk Storage Units give you 50-150 times the storage capacity of floppies, and 3-5 times faster system performance.

Right at your office.
Right at your fingertips.

Just think — you can:

- Easily run interacting programs such as word processing and spelling checkers.
- Write procedures to chain programs and leave the computer to run unattended.

Installation is easy, and is done once. Unpack your disk, plug it into the IEEE-488 port, and run a simple 10 minute installation procedure.

5 MB, 10 MB and 15 MB Available

Contact your dealer, or

TRANTOR SYSTEMS, LTD.
4432-I Enterprise Street
Fremont, California 94538
Telephone: 415-490-3441
Telex: 17-1618 ATTN: TNT



*Osborne 1 is a trademark of Osborne Computer Corporation.

Start Up

The Portable Companion wraps up its first year in publication with this issue. In June, the *Companion* presents a new face and debuts as a monthly; we're smoothing out the wrinkles in our design without changing the structure or emphasis of the magazine. We hope our new face-lift makes the magazine friendlier and easier to fathom. By adopting a monthly publication cycle, we can provide timely information and lots more of it.

Thom Hogan, publisher and Wizard extraordinaire, took a leave of absence from OCC and the magazine as of March 1. His computer magic and insightful writing will be missed. Brad Baldwin takes over the Wizard's column, continuing to lead you out of your technical snafus.

Adam Osborne's column, *From the Fountainhead*, becomes simply "Adam Osborne" with this issue. *From the Fountainhead* was originally conceived to present an outsider's view of the computer industry. Now as the owner of a computer manufacturing company, the gadfly feels he should stick to answering the hard questions about OCC. If you have a query or concern about OCC's philosophies, or its conduct in the market place, address it to *The Portable Companion* and we will pass it on to Dr. Osborne.

The *Companion's* editorial calendar for the next year emphasizes future applications for the Osborne. We'll explore the creative potential of these "bloodless little wizards," and provide insight into their expanding capabilities. The growth of microcomputers has generated prolific experimentation and immense public curiosity. We'll keep you posted on the latest software developments—from games to business packages—available for the Osborne. As hardware innovations become more reliable and affordable, we'll provide the details you need to expand your system wisely.

The magazine will continue to speak to beginners and experts alike. We realize the frustrations inherent in those first few months at the keyboard and the staff will do its best to debug the learning process. For the sophisticated reader we'll feature articles and programs tantalizing the most artful of computerists.

So, keep us around. We may prove to be the most helpful companion you ever discovered.

Jackie Rae
Editor

REWARD.

Find great bargains in this list and reap the rewards: immediate availability, 24-hour express delivery, toll-free technical support, and special volume discounts.

DATABASE MANAGEMENT

Condor III-Condor Computer Corp.	\$ 499
Tim III-Innovative Software	\$ 325
Superfile-FYI	\$ 125
d-Util-Fox & Geller	\$ 85
Quickscreen- Fox & Geller	\$ 131

COMMUNICATIONS

Move It-Woolf Software Systems	\$ 85
Crosstalk- Micro Stuf	\$ 120

WORD PROCESSING/SPELLING

Spellbinder-	
Lexisoft	\$ 295
The Word-Oasis	\$ 70
The Word Plus-Oasis	\$ 125
Superwriter-Socrim	(Coming Soon)
Random House Thesaurus-Dictronics	\$ 115

LANGUAGES/UTILITIES

CB 80-Digital Research	\$ 420
Fortran 80-Micro Soft	\$ 395

Cobol 80-Micro Soft	\$ 575
MAC-Digital Research	\$ 79
C Compiler-Supersoft	\$ 189

MISCELLANEOUS

Peach Pak Series 4-Peachtree	\$ 405
Stat Pak-NW Analytical	\$ 395
Mailman-Standard Micro Systems	\$ 105
Optimizer-Supersoft	\$ 155

MODEMS

Hayes 300 Smartmodem	\$ 212
Hayes 300/1200 Smartmodem	\$ 525
UDS 212A	\$ 595

PRINTERS

Epson MX80 FT	\$ 555
Epson MX100 FT	\$ 745
IDS Prism 80	\$1335
Okidata 82A	\$ 439
Okidata 83A	\$ 705
NEC 3550 33cps wp	\$1900

WANTED

Help in reducing our inventory. Pick up one of these specials and take advantage of a great price!

CROSSTALK-MicroStuf	\$120
HAYES 300 BAUD SMARTMODEM	\$212
SMITH CORONA TP-1	\$629
MUTIPLAN-Micro Soft	\$225

Call toll-free 800-328-2260

(In Minnesota, 612-544-3615)

American Express • MasterCard • VISA

3.5% surcharge on all credit orders.

Purchase orders accepted from corporate accounts. All orders are shipped UPS. \$3 shipping charge on software items. 2% shipping charge on hardware items.

DATASOURCE

DATASOURCE SYSTEMS MARKETING CORP.

1660 South Highway 100, Minneapolis, MN 55416

Adam Osborne

Tackling the tough problems

Adam Osborne

A number of readers had specific questions that were so similar I decided to answer them generally. This is something I plan to do in future issues of *The Portable Companion*, when there are clearly identifiable topics on the minds of many Osborne owners.

The most controversy surrounded our *dBASE II* free offer. Why did we do it?

We answered that one last time: To meet the competition. This time the question is what did you do for the existing customer base? Did you try to get *dBBase II* free for them as well?

Yes we did; and with no success. Frankly, I don't think it would have helped if we had been successful. Then everyone who had bought *dBBase II* at full price would be coming back for something free, now that other people had gotten the same software package cheaper by waiting. I can just imagine the irate letters hitting my desk, written by people who had paid full price for *dBBase II* in the one or two weeks preceding a free offer. We tried and failed to get a special *dBBase II* offer for existing Osborne 1 owners, and frankly, I think in the long run we are better off having failed.

Those of you who are not familiar with the computer industry probably do not understand how quickly products and perceived values change. It is a "dog eat dog world" out here, and we plan to be one of the survivors.

That involves an endless stream of better values and special promotions. There is no other way to survive.

Does that mean that you should postpone buying a microcomputer? Perhaps, but you had better be prepared to wait until the year 2000 and beyond, because any time you buy a microcomputer you can expect a better deal to be available later.

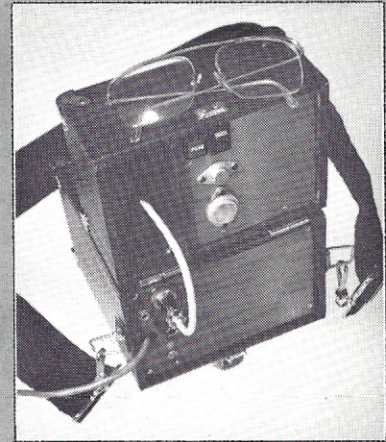
We did attempt to do something for our existing customer base by getting a special offer on *Personal PEARL* for people buying COMM-PAC.

The next most frequently asked question dealt with the amount of support we are giving our dealers, and the innumerable slippages in shipments of hardware options and software.

What can I say? We are doing our best but because of our rapid growth rate, we sometimes slip. Delays have been caused by bad components at incoming quality assurance inspection, by programs that were delivered to us with bugs, etc. I could give you the full catalog of excuses, but the answer you would give me is obvious—there should be no need for these excuses. You are right. Frankly, when you look at what we have done right, the mistakes are really quite small in comparison. Nevertheless, we hope to do everything right in the future. (Don't we all?)

One of the supposedly unavailable items is our *Technical Manual*, which

FOR ALL YOUR CURRENT NEEDS



FIREFLY®

BATTERY PACK/U.P.S.

- 3 to 8 hours of independent battery power makes Firefly the longest lasting portable power source available — pound for pound or dollar for dollar.
- 4 state L.E.D. charge monitoring system with discharge warning buzzer.
- Reduces internal heat inside your computer by up to 70%, greatly increasing hardware reliability.
- Operates from vehicle cigarette lighter with supplied cable.
- Optional U.P.S. (Uninterruptible Power Supply) protects data and hardware from harmful voltage spikes and complete blackouts while operating from A.C. wall current/or recharges in 3 to 4 hours.
- Everything (including U.P.S.) fits in one small 4½" x 6½" x 9½" case.

— 12 MONTH LIMITED WARRANTY —

See your local computer store or contact us directly.

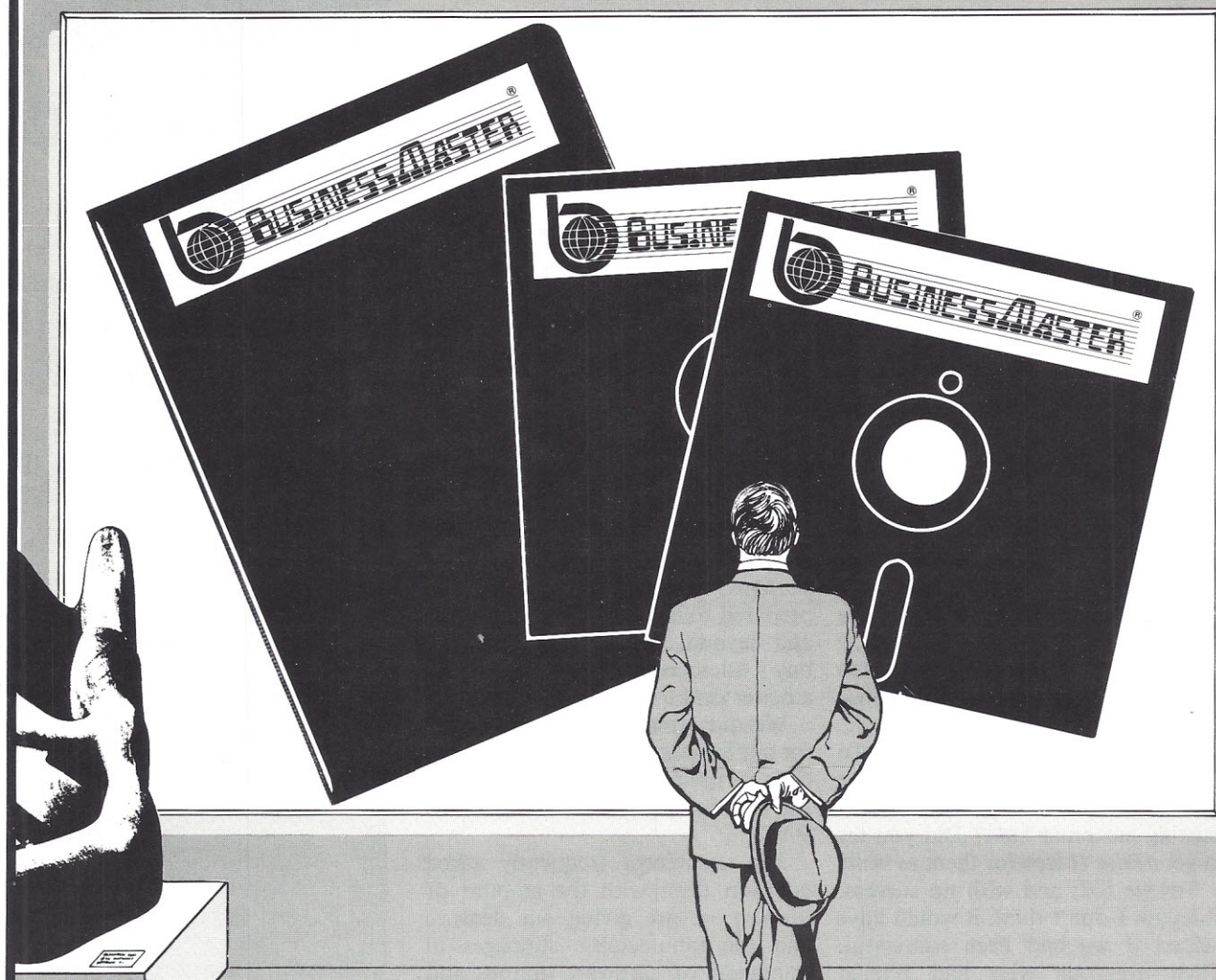
Priced from \$159⁰⁰ up.

— DEALER INQUIRIES INVITED —

Gamma Research
6253 Hollywood Blvd. #711
Los Angeles, Calif. 90028
(213) 463-2345

BUSINESSMASTER PLUS

ACCOUNTING SOFTWARE SO COMPLETE,
IT'S A MASTERPIECE.



An 8-module masterpiece for the price of one:

Packages available:	Us	PT	STAR	AP	Yours
General Ledger	yes	yes	yes	yes	—
Accounts Receivable	yes	yes	yes	yes	—
Order Entry	yes	yes	yes	yes	—
Accounts Payable	yes	yes	yes	yes	—
Purchase Orders	yes	*	no	yes	—
Inventory (Regular)	yes	—	—	—	—
Inventory (Raw Goods)	yes	yes	yes	yes	—
Payroll	yes	*	—	—	—
Fixed Asset Accounting with ACRS	yes	*	—	—	—
Mailing List	yes	—	—	—	—

Us BusinessMaster STAR Star Computer Systems
PT PeachTree AP Accounting Plus

* Available separately

- BusinessMaster® is a trademark of BusinessMaster, Inc.
- Peachtree is a trademark of Peachtree Software, Inc.
- Accounting Plus is a trademark of Software Dimensions, Inc.
- Star is a trademark of Star Computers, Inc.

Accounting software so complete, the only thing we left out was the high price.

CBASIC2 Version \$289
CB-80 Version \$495
CB-86 Version \$495

There's no room here for a full comparison. Send for our free software performance evaluation, and judge BusinessMaster Plus for yourself.

Dealers and distributors' inquiries welcome.



BusinessMaster, Inc.
1207 Elm Avenue, Suite M
Carlsbad, CA 92008
619-434-6165
800-521-9277 (Outside California)

Adam Osborne

"First and foremost, our commitment to industry standards is total. This, in my opinion, is not a question of philosophy, it is a question of survival."

you need if you want to customize your Osborne 1 for any special application. One or two readers have gone so far as to claim that we are discouraging any such customization. You are wrong. The information is readily available for you to do anything you want to your Osborne 1. Unfortunately, the *Technical Manual* is a slow moving item, which most stores do not carry and many do not even know about. It costs \$50 and can be obtained by placing an order with your local dealer.

In order to avoid our past sins of telling you about products and delivering them months later, I will no longer talk about a product before it is available. However, I will tell you some of our guiding philosophies when it comes to designing new products.

First and foremost, our commitment to industry standards is total. This, in my opinion, is not a question of philosophy, it is a question of survival.

To illustrate, there are currently two video cassette formats: VHS and Beta. Sony threw its weight behind its own format, Beta, and is probably losing. There are a number of other video cassette formats available, including one proposed by the giant Dutch company, Philips. But they

have not made it. In all probability, there will ultimately be just one standard: VHS.

And as the microcomputer industry moves toward consumer product status, the same logic will relentlessly apply: *De facto* standards will occur. They may or may not relate to what is technically the best. But that is irrelevant. Providing the standard gives customers what they perceive as necessary, they are adequate and will dominate.

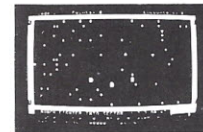
We believe that CP/M and Z80 will be the long-term 8 bit standard. We believe that IBM will set the 16 bit standard. All other microcomputer manufacturers have the option of adopting these standards or eventually going out of business.

It is important that OCC continue to be a leader by introducing new products. However, new products must be upwardly compatible with old products. You should be able to take your existing programs and data and run them on the new product, either directly or following an elementary conversion process. Nothing could be more foolish than to come out with new products that are incompatible with the old ones.

As time goes by, the quest for manufacturing excellence will become more and more intense. In order to survive we will have to build microcomputers that are as reliable as can possibly be achieved. The industry is booming because microcomputers have such an enormous economic imperative. One individual with a microcomputer can probably do the work of three or four individuals without. For the next few years, our whole economy will have to adjust to this new work pattern. President Reagan just stumbled on it. I wrote about it back in 1978, in my book *Running Wild—the Next Industrial Revolution*. You, the owners of microcomputers, found out about it ahead of the pack.

CAN YOU MANAGE YOUR RESOURCES?

Fine tune your management skills as the commander of Starbase 062151. Allocate scarce resources in your defense. Starbase Commander is an arcade-style game that uses the full video capabilities of your Osborne 1 to emulate the video display of a large computerized tactical defense system. Your video monitor displays real-time on-screen values for resources of fuel, lasers, ion torpedoes, and shield strength plus radiation level and score.



Starbase Commander

Starbase Commander uses Osborne graphics to show 'Klang' alien battle cruisers maneuvering to attack your star-

base, firing lasers. The more you fight back the harder they attack. Your fighters have two weapons, controlled by separate keyboard keys, but watch the radiation level.

You decide where to launch your fighters. Then clear a sector of enemy battle cruisers and launch a robot refueling ship to resupply your fighter before you run out of fuel or weapons. There is even a 'help' screen.

Starbase Commander has the imaginative quality of an adventure game with the fast action graphics of an arcade game. Order yours today.

WHAT IF I LOSE?

If you lose Starbase Commander you will be captured by the evil 'Klang' aliens. Win freedom from your captors by defeating a series of increasingly hostile gladiator robots in our Robot Gladiators game. Win and become a prince, lose and become a slave.

Both games, Starbase Commander and Robot Gladiators, run in fast machine language. The instructions are on the game disk.

ORDERING INFORMATION

Please send check or money order for \$19.95 for one game, or \$35.95 for both, plus \$2 postage and handling per order to Mindware, Dept. PC1, P.O. Box 1718, New Rochelle, NY 10802. For orders shipped to N.Y. State please add local sales tax.

MINDWARE®
WE CHALLENGE YOUR MIND NOT JUST YOUR REFLEXES.

DEALERS—WRITE FOR OUR ATTRACTIVE MARKETING PLAN!
COPYRIGHT, 1982 E. PAUL COHN, INC.
OSBORNE 1 IS A TRADEMARK OF OSBORNE COMPUTER CORP.

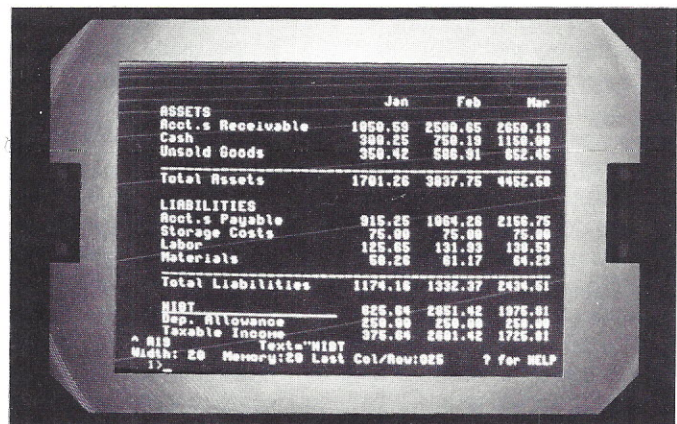
Sight for Sore Eyes



EASY READER, a screen magnifying lens which adapts in minutes to the Osborne 1™ computer. The five inch monitor is magnified by a 6¾ x 4½ inch durable plastic fresnel lens. To insure portability, the lens can be detached from its mounting bracket, folded flat and laid between the keyboard & screen portion of the computer.

\$34.00 each*

Money back guarantee



TO ORDER

Yes please send me **EASY READER** Screen at \$34.00 each.

☐ Personal Check ☐ Cashier's Check/Money Order
☐ Visa ☐ Master Charge (Bank No. _____)

Acct. No. _____ Exp. Date _____

Signature _____

PRINT NAME _____

Address _____

City _____ State _____ Zip _____

dp _____

Dipco ATTN: Jim Randono
 1900 East 12th Street
 Oakland, California 94606

*California residents add 6% for state sales tax.
 Price includes shipment anywhere in the U.S.A.

Letters



Bugged About Bugs

At a recent user's group meeting the subject of programs published in *The Portable Companion* came up. One fellow commented that he had tried several of them and that none of them had worked. That seemed to be the general experience.

Would it be possible to have your articles checked for technical accuracy by having someone at Osborne actually try them before they are published? It would sure save your readers lots of wasted work.

Tom Vyse
SDOUG
San Diego, California

We are making every effort to improve the technical accuracy of the magazine. Brad Baldwin, who joined our staff in November, carefully reviews each program for bugs before it's accepted for publication. This, along with a new proofreading system, should significantly reduce the errors in the magazine.

One at a Time

Here's an MBASIC line re-numbering tip worth seeing the *Wizard of Osborne* about.

Neither the BASIC-80 reference manual that came with the early Osbornes nor the new Osborne 1 *User's Reference Guide* describe how

to re-number one program line at a time. In fact none of the Microsoft BASIC books I've read mention it.

RENUM's global powers result in overkill by renumbering a given line and all subsequent lines. Yet, in fact, MBASIC has a one-line-at-a-time re-numbering capability.

Here's an example of how to re-number line 150 as line 600:

Type **LIST 150** and line 150 will display.

Type **CTRL A** and an exclamation mark will be displayed.

Type **I** to turn on insert mode.

Type **600 (space)** followed by **RETURN**.

The line will now be duplicated at 150 and 600. If you wish, 150 can be deleted by typing 150 followed by **RETURN**.

I can't tell you how many hours this simple technique has saved me. I hope you'll pass it on to the other scarecrows, lions and tin men (and women) in Osborne land.

August E. Brunzman, III
Columbus, Ohio

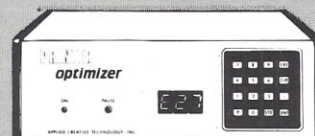
More on Service

I enjoyed Adam Osborne's editorial about servicing problems in the Oct/Nov issue. I would like to add that an additional challenge facing manufacturers is to provide service to their dealers. We consumers can be served by our dealers only as well as OCC serves them.

We had a very long wait for WORD-PAC and COMM-PAC at our Computerland store and our Osborne specialist still has not received any "official" notice of the software upgrade package mentioned in the Oct/Nov issue. To her, the upgrade doesn't exist if it isn't on Computerland's computer. Already the computer has become the problem and not the solution.

Tim Snyder
Glenside, Pennsylvania

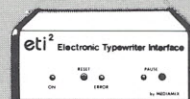
PRINTER OPTIMIZER



Why buy a mere "spooler" when you can have THE PRINTER OPTIMIZER?

- * 64k to 256k spooling buffer
- * adapts different brands - can mix Serial and Parallel
- * character conversion: 1 to 1, 1 to many, many to 1, ignore
- * pushbutton automated access to your printer's various type styles and printing modes
- * several ways to PAUSE printing
- * access any character, graphic design or printer "trick" from any program at any time
- * special features for use as a MODEM buffer

ETI²



The cost effective alternative. Converts IBM, Adler/Royal, Olympia and other Electronic Typewriters into letter quality printers.

- * 2K memory buffer
- * access all typewriter characters and automated features
- * Serial or Parallel versions
- * Many proprietary features and commands insure compatibility with your system and software
- * Typesetting capability!

PETI²



Super low cost adaptor for new inexpensive portable Electronic Typewriters can yield typewriter and letter quality printer combination for around \$500 total!

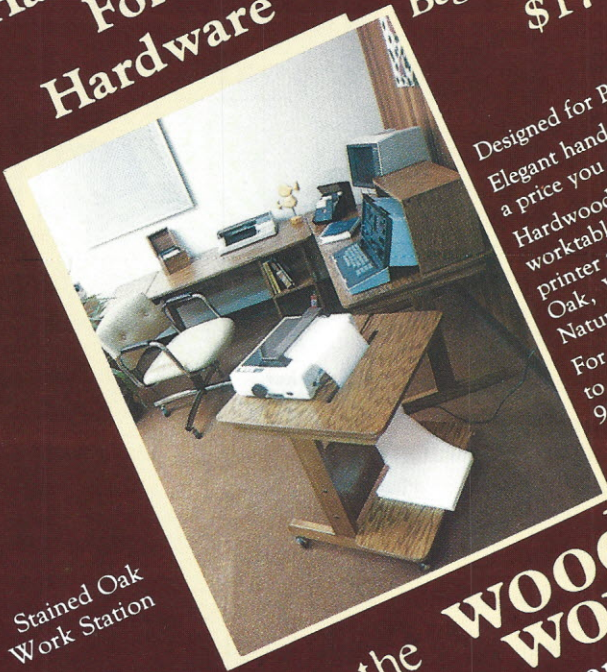
- * perfect for "personal use"
- * easy "plug-in" Parallel connection to most computers
- * compatible with popular word processing programs

APPLIED CREATIVE TECHNOLOGY INC.

2723 Avenue E East, Suite 717
Arlington, Texas 76011
(817)-281-8905
(800)-433-5373

Hardwood
For
Hardware

Beginning at
\$175.00



Stained Oak
Work Station

Designed for Personal Computers.
Elegant handcrafted furniture at
a price you can afford.
Hardwood, hardwood veneer
worktables, shelf units, and
printer tables. Choose from
Oak, Walnut, or Cherry.
Natural or Stained.
For Information or
to order, call —
913-842-7797
MC & VISA
accepted.

the wood
works

(913) 842-7797
11th & Haskell Rt. 2, Box 407
Lawrence, KS 66044

OSBORNE

Games □ Languages □ Utilities

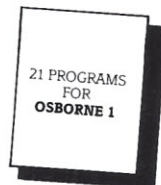
Now 7 arcade action games with full graphics:
INVADERS, MUNCHKIN, SPACE PIRATES, SNAKE and
the new ARCTURUS TRILOGY.
Plus The Original ADVENTURE and MYCHESS
championship chess with full graphics.

Word processing programs: Spelling proofreader
(50,000 words), file difference detector and more.

Languages for advanced programmers: Top-rated "C"
COMPILER (fastest in BYTE benchmark), LISP, RATFOR,
8080, Z80 MACRO ASSEMBLERS. Plus five utilities,
and more.

FREE CATALOG

For your free software catalog: (1) see
your nearest Osborne dealer (2) call us
or (3) write us.



Osborne 1 is a trademark of Osborne Computer Corp.

The Software Toolworks®

15233 Ventura Blvd, Suite 1118,
Sherman Oaks, CA 91403.
(213) 986-4885



Letters

What a Dump

Your Dec/Jan issue has an interesting article by Tim Kretschmar titled "Basic Screen Dump." I, like Tim, am not yet fully conversant in assembly language so I ended up with a similar solution to the dumping problem. I have also added a few features other readers may find useful.

Instead of using my screen dump as a subroutine to any program that might need a dump, I made a few changes and added it to the "A" diskette carrying MBASIC. It can then be called up at a moment's notice any time it's needed. The changes are quite simple.

Change line 1150 to **DELETE 1000-1150**. Save the program under a filename like "SCR.BAS." Set up a special function key for **MERGE "SCR.BAS."(RETURN)**. Set up another key for **RUN 1000 (RETURN)**.

Now, at any time, pressing the first key adds the screen dump program to the present program. Pressing the second key runs it. The last line is a self-destruct feature.

William Feingold
Fresh Meadows, New York

Osborne Junkie

I just discovered your excellent magazine. I read through it twice, slept with it for three days, pureed it in the blender and injected it into a major vein. It's outstanding.

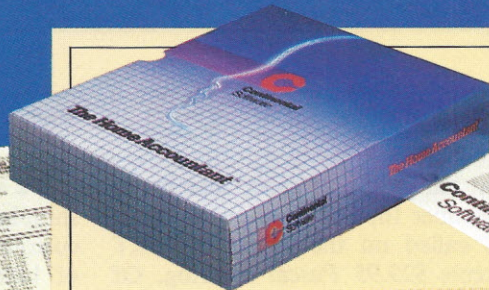
I understand the first issue is dead and gone while issues still remain of the second and third editions. Please ship these two to me by rocket sled.

If the first issue is ever reincarnated, please let us Osborne junkies know.

Rick Stanton
Hartwood, Virginia

The Home Accountant.TM

The #1 best-seller.



Any home finance package will balance your checkbook. But to become the #1 best-seller you've got to be something special.

The Home AccountantTM is.

It's the only one that prints a net worth statement and a personal finance statement. So you know exactly where you stand financially every day of the year. It will even print your checks, automatically.

Not only that, The Home AccountantTM lets you label every transaction. Just imagine sitting down to do your taxes and having every penny you've spent and earned neatly listed by category—and available at the touch of a button. It's an incredible time-saver.

You can also create bar, line and trend analysis graphs for every category—in color. It's great for realistic budgeting.

Sound amazing? Wait, there's more.

Let's say you write a check to pay your Visa. The Home AccountantTM automatically debits your checking account and credits your Visa account.

And it does this with every one of the two hundred* budget categories: credit cards, checking accounts, money markets, cash, rent checks, insurance payments—you customize your own financial package.

Check out The Home AccountantTM soon. You'll find it does a lot more than simply manage your money.

It manages your money simply.

*The Home AccountantTM is available for the Apple II/IBM Personal Computer/Atari 400/800 Computers/Osborne/TRS 80 Model III/Commodore VIC 64. The actual budget capacities will vary with each computer.



**Continental
Software**
A Division of Arrays, Inc.

Apple II is a registered trademark of Apple Computer, Inc. IBM Personal Computer is a registered trademark of IBM Corp. Atari 400/800 are registered trademarks of Atari, Inc., a division of Warner Communications, Inc. Osborne is a registered trademark of Osborne Computer Corp. TRS 80 Model III is a registered trademark of Tandy, Inc. Commodore VIC 64 is a registered trademark of Commodore Business Machines, Inc.

It sells the most, because it does the most!

Continental Software Co., 11223 South Hindry Avenue, Los Angeles, California 90045 Telephone (213) 417-3003 • (213) 417-8031

SET TYPE

On Your Osborne 1™

The type in this advertisement was set on our Osborne 1™ Computer. Yours can also be used as an input to our sophisticated laser typesetting system. Use the editing features of Wordstar® together with our simple type-setting commands to set type for all kinds of publications such as

**MANUALS, NEWSPAPERS,
NEWSLETTERS, BOOKS,
ARTICLES, PROGRAMS,
POETRY, MEMOIRS,
DIRECTORIES, COOKBOOKS**

Real typesetting is professional, easy to read and *expensive*. By doing the keyboarding on your computer and sending the discs to us typesetting becomes "professional, easy to read and *INexpensive*."

At Accent Graphics typesetting is also fast and very versatile. We can provide whatever assistance you need to produce beautiful, ready-for-printing pages.

- Editing and other services available
- Foreign languages possible
- Over 100 traditional and modern faces
- Mail discs or use phone modem

Write or call us for information, or send \$2.00 for our complete manual of typestyles, command codes, terminology, production advice and graphic aids and tables.



ACCENT GRAPHICS

226 So. 16th St. • Lincoln, NE 68508
(402) 475-5533

Letters

Tired of Waiting

At our local user group meeting of December 16, 1982, a show of hands was called on the subject of JRT systems \$29.95 *Pascal* offering. Of the 12 people present who had ordered JRT *Pascal*, only three actually received the product, yet 11 had already had their checks processed and returned.

I myself have been waiting over four months. My check was processed over three months ago. I have called the factory twice; once to be put on hold for 15 minutes, the second time I was told that my product had been shipped three weeks prior and that I should wait another week. At the end of an additional two week wait, I wrote the factory, and three weeks later wrote them again.

Since so many people share my experience with JRT Systems, I urge you to suspend their advertising privileges until they can show proof that they have caught up with their back orders.

Scott Rainey
OSBUG
Portland Oregon

We received the following letter from JRT Systems concerning the problem you've expressed in your letter. They are making a number of changes to resolve the problem and catch up with their backorders. If you still have not received your copy, we suggest that you ask for your money back. We promptly investigate complaints against advertisers in this magazine (as defined in our advertising disclaimer found next to the ad index in each issue). Yours was the only complaint received and JRT's response arrived almost immediately thereafter. For this reason, we have not taken you up on your suggestion to suspend their advertising privileges.

Staggering Backlog

We are experiencing delays in the shipping of JRT *Pascal* to our customers. I have received a number of letters from customers who are very concerned about this. Similar letters have been sent to the editors of the magazines in which JRT Systems advertises.

It has always been our policy to immediately cancel any order on request or make an immediate refund if payment has been processed and shipment not yet made.

As of today we have shipped 10,000 *Pascals* and have 7000 orders on backlog. About 6000 of those are less than six weeks old. A six to eight week shipping delay is not unprecedented in the computer industry, but it is not acceptable to JRT Systems.

In the past two weeks the shipping staff has grown from one to four full-time people. In this same period we completed installation of a sophisticated set of new shipping programs which automate, log and validate every aspect of the shipping operation. Last week we exceeded 500 *Pascal* shipments per day. With our new system we can exceed 1000 per day.

We still have delays in obtaining copied diskettes rapidly enough, especially in 5¼ inch format. Changes planned for the near future will eliminate this problem.

In short, the delay in shipping JRT *Pascal* is due to the staggering sales growth. We are moving as fast as possible to expand production capacity.

J. R. Tyson
President
JRT Systems



FINALLY! PERFECT SOFTWARE

**MICROHOUSE
MICROHOUSE
MICROHOUSE
MICROHOUSE
MICROHOUSE
MICROHOUSE
MICROHOUSE**

PERFECT WRITER - simply the best, advanced featured word processor available. Perfect writer features an easy-to-use manual and step-by-step instructional diskette.

List \$495

Microhouse \$239

PERFECT CALC - Perfect Calc creates a new standard in financial spreadsheets. Allows useage of seven different data files at the same time! And, like all the other Perfect software interacts with perfect writer.

List \$295

Microhouse \$149

PERFECT FILER - The perfect data entry and retrieval program, features 2 standard mailing list formats, record of correspondence, sorting, reports and much, much more. Plus, it interacts with perfect writer.

List \$595

Microhouse \$299

PERFECT SPELLER - Round off the perfect package with a perfect speller. This 4,000 word per minute spelling checker features an expandable 50,000 word dictionary.

List \$295

Microhouse \$149

**SALES PLUS SUPPORT
SALES PLUS SUPPORT
SALES PLUS SUPPORT
SALES PLUS SUPPORT
SALES PLUS SUPPORT
SALES PLUS SUPPORT
SALES PLUS SUPPORT
SALES PLUS SUPPORT
SALES PLUS SUPPORT
SALES PLUS SUPPORT**

MICROHOUSE

CALL TOLL FREE: 1-215-868-8219

**IN PA:
1-215-868-8219**

**FOR TECHNICAL SUPPORT:
2-215-868-4133**

P.O. BOX 498, BETHLEHEM, PA 18016

DEALERS INQUIRIES WELCOME

Perfect Software is available for IBM, 8" CPM, Apple, Northstar, Superbrain and Osborne format.

Perfect Writer, Perfect Filer, Perfect Speller, Perfect Calc are trademarks of Perfect Software, Inc.

if you use **CP/M**[®] then you need **DISK FIX!**

DISK FIX is a disk editor which can display, edit or copy any sector of a CP/M floppy and/or hard disk. The DISK FIX utility can be used to recover files from disks with damaged directories, to reconstruct files with bad sectors, to restore erased files and to do general disk editing.

DISK FIX automatically configures to floppy and hard disks, just insert the program disk and it is ready to run.

PROGRAM MAP for Microsoft BASIC

PROGRAM MAP produces alphabetical lists of a program's variables, commands & functions, line numbers referenced and constants. It is fast and easy to use and runs directly under CP/M.

PROGRAM MAP helps you accurately 'debug', modify, convert and/or document Microsoft BASIC programs in a minimum amount of time.

telecommunications? use **SOFTCOM**[®]

SOFTCOM is a smart terminal and file transfer utility all in one easy to use package. SOFTCOM can:

- make your system a terminal to a HOST time sharing system.
- capture data onto your disk from a HOST time sharing system.
- send text and program files from your disk to almost any type of computer.
- exchange any type of file with another SOFTCOM system with error detection and automatic retry.

SOFTCOM runs on all CP/M based computers. Three license options are available: single CPU (\$150), dual CPU (\$250) and multi CPU (\$450). Call our software HOT LINE 906/228-7622.

The Software Store

706 Chippewa Square
Marquette MI 49855

*the Wizard
of Osborne*

Step-by-Step

Brad Baldwin

According to a *Portable Companion* survey, the Epson MX-80 is the most widely-used printer among Osborne users. We believe it.

It seems half the mail sent to the *Wizard* column and *Letters to the Editor* concerned the Epson *Grafrax Plus* and its inadequacy in performing superscripts and subscripts. It seems appropriate then to solve that problem first.

The Epson uses a special vertically compressed character for scripts. There is no need for half-line feeds or incremental spacing. Accessing this character turns double striking and uni-directional printing on—and it remains on even after exiting from the script mode. A rather annoying problem. A bigger problem is that the Epson manual listed the incorrect hex codes for super/subscripts—an error that is difficult to catch if you are not versed in hexadecimal numbering systems.

Here's one way to patch *WordStar* for script capability. Use *WordStar's* INSTALL program, described in your Osborne *User Reference Guide*. This issue also describes half-line feeds in *I/O, I/O, Part Three*.

ROLUP: 03 1B 53 00 Superscript (^PT)
ROLDOW: 03 1B 53 01 Subscript (^PV)
USR3: 05 1B 48 1B 55 00 Scripts off (^PE)

USR3: turns double strike off and bi-directional printing on. The USR4: patch area is infringed upon by USR3: USR4: cannot be used. Use the ^PE in addition to the ^T

or ^V to turn off scripts, e.g.:

This is a superscript ^T1 ^T ^E.

This is a subscript ^V2 ^V ^E.

Q: When I place my 12" Zenith ZVM 121 monitor on top of my Osborne 1 the COPY.COM program crashes (it fails to read the inside tracks on Drive A). Moving the monitor away from the computer by three feet results in successful COPY.COM operations. I am wondering if this is a problem encountered with all monitors, some monitors, all Zeniths, or just mine? Do you recommend installing home-made shielding? I should also point out that my Osborne 1 was upgraded from ROM 1.2 to ROM 1.3 and that's when the problems began.

A: This is not the first we have heard of monitors affecting computer performance; radio frequency emissions (RFI) from the monitor are interfering with the disk drive electronics.

It is possible that your dealer accidentally disconnected the ground-ing wire attached to the disk drive shield while performing the upgrade. Also, make sure you are using a shielded cable for your monitor and not just an RCA audio cable.

Recently, an extra shield was installed in the computer to keep the electronic noise emitted by many of the lower-cost monitors from affecting the performance of the machine. We suggest placing a thin metal sheet underneath the monitor when it is

used on top of the Osborne. Also, don't set your diskettes on the monitor—they may be erased.

Q: I just bought a \$395 serial Heathkit H-14 dot-matrix printer. What does it take to get this thing going? Nothing seems to work.

A: We contacted Leo F. Hood of Hood Technical Services and asked him to describe his interfacing adventures with the H-14. He found that the H-14's "Request To Send" signal is opposite in polarity to the signal that will be accepted by the Osborne as Data Terminal Ready.

Mr. Hood designed a hardware modification to the H-14 that provided an inverted Request To Send Signal on pin 4 of the RS-232 connector. That signal was wired to pin 15 on the printer side and connected to pin 20 on the Osborne 1 side. Pins 1, 3 and 7 of the H-14 were connected to corresponding pins on Ozzie's RS-232 port. Mr. Hood says that Heathkit does provide a set of instructions detailing the process of inverting the RTS signal with the printer, but he found his modification didn't sacrifice other signal levels while Heathkit's did. Mr. Hood is willing to correspond with anyone about the H-14 if you send him a stamped and self-addressed envelope.

Hood Technical Services
Leo F. Hood
206 Cecil Avenue
West Lawn, PA 19609

Q: My AMCALL diskette won't start itself. I have to first load WordStar or CP/M and get the A>. Then, I switch diskettes and type AUTOST or AMCALL. Is this normal? Also, can I modify the CP/M diskette so that it will skip the help menu and go directly to the A>?

A: The AMCALL diskette—and all other Osborne Approved Software—does not come with CP/M system tracks; it must be SYSGENed. (See

the instructions found in the AMCALL or Osborne User Reference Guide.)

To go directly to the A> on your CP/M diskette, or any other diskette, erase the AUTOST.COM file: A>ERA AUTOST.COM.

Q: My SUBMIT command seldom works correctly. This seems to be fairly common to CP/M machines. When I SUBMIT a file, the appropriate drives whirl and grind but nothing happens. What gives?

A: SUBMIT.COM (CP/M batch utility program) is somewhat tricky to use. A common error is to execute SUBMIT on the B drive and not on the A drive. We'll explain.

SUBMIT accepts a command file written with the "N" option in WordStar and builds a temporary \$\$\$SUB file. After the SUBMIT program ends, a WARM BOOT is performed and the \$\$\$SUB file's command lines are automatically and immediately executed. Here is where the problems begin, because if you are not on the A drive when running SUBMIT, the \$\$\$SUB file is created on the currently logged disk. A warm boot jumps over to the A drive, leaving you high and dry. Only SUBMIT needs to be on the A drive, your command file may be placed on either the A or B drives.

To test the submit function, first use simple commands without variables, like the following directory checker:

DIR B:
DIR A:
XDIR A:

The following SUBMIT program (TEST.SUB) compiles and runs a CBASIC program, then erases any back-up files on the A drive, PIPs over the .BAS and .INT files (if they were created on B), and finally performs an extended directory check on both diskettes. The format to execute

**ELECTRONIC
TYPEWRITER
INTERFACE**
\$395

**WILL INTERFACE
WITH: IBM, Adler-Royal,
Olivetti Praxis, Olympus,
Brother, Silverreed,
Smith-Corona**

FEATURES:

- Z80A 4MHZ CPU control & processing
- 4 or 8K CMOS Battery back-up memory
- 16K EPROM storage for programs
- 2 serial ports
- 300-600 baud auto-answer/auto-dial modem
- Interface for micro or standard cassette recorders for mass storage

Dealer inquiries invited.
Quantity discounts available.

Write or Call
WHOLESALE SUPPLIERS
P.O. Box 22428
Carmel, CA. 93922
(408) 373-0320

DATABANK

DATA MANAGEMENT FOR AMATEURS



Even "Drac" has trouble convincing people he's an amateur when they see the results

DataBank software and the Osborne 1 system are a powerful combination for creating information management and records processing systems the way you want them.

And, you can do it yourself...even if you've never touched a computer before! There's no cryptic "computerese" to learn with DataBank...it speaks plain language.

Ease of use doesn't limit DataBank's power or performance. All the functions you'll need are packaged in one unified software system: on-line data entry, up to 50 data fields per record, high speed sorting by up to ten (10!) data fields, 10 levels of record selection on all output (reports, letter merges, etc.), reports with arithmetic, query, letter merge, mailing labels, formatted disk file output, and utilities to define your own files, screen formats, menus and reports.

DataBank provides a direct, documented interface with your Osborne's WordStar* Program for letter merges. And, you have a choice: let DataBank read and merge your document; or output a formatted file to disk to use with MailMerge*.

Tight on disk space? There's no need to reserve work areas with DataBank. Assembly language sorts are done in place to optimize available disk storage. Files can span disks too! Up to four drives, including Winchester, can be used for a single DataBank file. That can mean over 10,000 names per

*Wordstar and Mailmerge are trademarks of MicroPro International

MegaByte on a mailing list!

Want to get into customization? DataBank includes a powerful, well documented MBASIC Subroutine Library for your specialized requirements. It's supplied on the disk in source code so you can see how DataBank works. Using the library, even an amateur BASIC 'grammer can look like a pro in no time.

Documentation? The best...rated excellent by InfoWorld. Over 150 well written pages will "hold your hand" while you put DataBank to work.

Eight sample information systems are included: a mailing list, inventory, correspondence system, word processing log, client/vendor file, real estate listings, student file, bank loan records. With these, DataBank is up and running the day you get it!

DataBank costs \$249. And, it gives you more than other software that costs lots more. Delivery is off the shelf, so get it for your system today. Contact your Osborne Dealer or Data Access Corporation.

DataBank, the data management system for amateurs.

DATAACCESS[®]

CORPORATION

4221 Ponce De Leon Boulevard
Coral Gables, Florida 33146
(305) 446-0669

the Wizard of Osborne

this sequence might look like this:
A>SUBMIT TEST B WIZ:

```
TYPE $1:$2.BAS
CBAS2 $1:$2
CRUN2 $1:$2
ERA *.BAK
PIP A:=B:$2.*
XDIR A:
XDIR B:
```

A few of you have indicated that your user group bulletin board has a version of SUBMIT that creates the \$\$\$\$.SUB file automatically on drive A, avoiding the problem outlined above. This is easy to do—we describe how in the “Technical Tips” article in this issue.

Q: I'm trying to interface a Base 2 Model 800 printer to the RS232 port. So far, not one character has been printed. Base 2 Inc. has been out of business for some time now, so I hope you can help. I've enclosed a manual to aid you in your research.

A: Gee...thanks.

According to the manual, Base 2 uses just four pins: 3 (received data), 5 (clear to send), 7 (signal ground), and 20 (data terminal ready). In the margin next to the pin-outs for the printer you indicated that pin 2 from the Osborne is connected to pin 3 on the printer. Unless Base 2 made a mistake in their RS232 interface, or is considered to be a DCE device, you should connect pin 3 to pin 3. Also, connect 7 to 7 and 20 to 20.

To prevent buffer overflow, the manual says that the status line may be selected to pin 5 or 20 through DIP switches. Turn switch 7 OFF and 8 ON to choose pin 20, but check various combinations, as switches are sometimes installed backwards (ON is OFF and OFF is ON).

One more point. The printer is supposed to set the status line to “busy” only when it's printing; perhaps this signal is inverted in the Base 2, causing the Osborne to perceive it as

always busy. Most computer dealers have serial port checkers to analyze the status (high, low, data) of the various RS232 signals.

Q: While merge-printing an envelope file, the following warnings were noted on the screen:

```
.MB
*** Invalid variable name in .RV
command
*** Invalid dot command ignored
.PL
*** Invalid dot command ignored
.MT
*** Invalid dot command ignored
This is my command file list:
```

```
.OP
.PL
.MB
.MT
.DF DATAFYL
.RV #,NAME,COMPANY,etc
&NAME&
&COMPANY&
```

A: The pound sign (#) is an invalid variable, simply replace it with another label. The other dot commands are ignored because you forgot the numbers, e.g.: .PL 26, .MB 6, .MT 3.

Q: I earnestly require your assistance because I am bordering on the brink of insanity and if someone does not come to my rescue I will go over the edge.

My biggest problem is SuperCalc. I keep getting more numbers to the right of the decimal than I really need: I only want four.

I'm sending you a sample of the SuperCalc program so you can see the problem.

Some of the numbers in the sample are:

```
1.0545933333333
.03459333333333
```

A: Don't jump! You made a very simple mistake—some of your columns

OSBORNE 1TM SOFTWARE

Discount Prices

ACCOUNTING

DATA BASE
MANAGEMENT

LANGUAGES

MAILING LIST

MANUFACTURING/
RETAIL SYSTEMS

MEDICAL OFFICE
SYSTEMS

MODELING, PLANNING
& ANALYSIS

TELECOMMUNICATIONS

TIME, BILLING
& SCHEDULING

WORD PROCESSING

Largest Selection Of
OSBORNE 1 SOFTWARE
Over 75 Programs Total

Single & Double Density

Write For Our List:

CORNERSTONE SOFTWARE

P.O. BOX 5151
SAN JOSE, CA 95150
(408) 972-0515

Osborne 1 is a trademark of Osborne Computer Corp.
Copyright © 1983 Cornerstone Software

ROBONICS

936 Hermosa Avenue
Hermosa Beach, CA 90254
(213) 376-1750



Contact your Osborne dealer for a free demonstration!

Or complete and return this coupon to receive GRAFIKS 2.0 by mail.

Yes!

I want to see the whole picture!

Please send me the complete GRAFIKS 2.0 Package. I have enclosed a check or money order for \$125 (California residents add 6.5% tax). Foreign orders add \$10.00.

☐ Single density ☐ Double density

Name _____

Address _____

City _____

State _____

Zip _____

The professional, high-resolution graphics package at a friendly, affordable price!

Creating professional bar charts, line graphs, scatterplots and pie charts on your screen and printer is a snap with GRAFIKS 2.0 by Robonics. And at only \$125, it just may be the friendliest software package you'll ever own!

Labeling your graph is as easy as moving the cursor to the desired location and typing the labels in. You can generate graphic information from CBASIC, SUPERCALC, MBASIC, WORDSTAR and DBASE II files. Then you can proof it on the screen and print it for posterity, quickly and easily.

Amazing Flexibility!

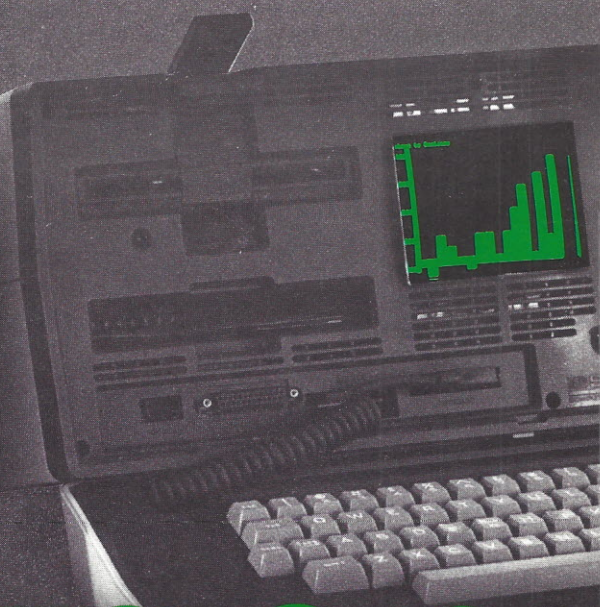
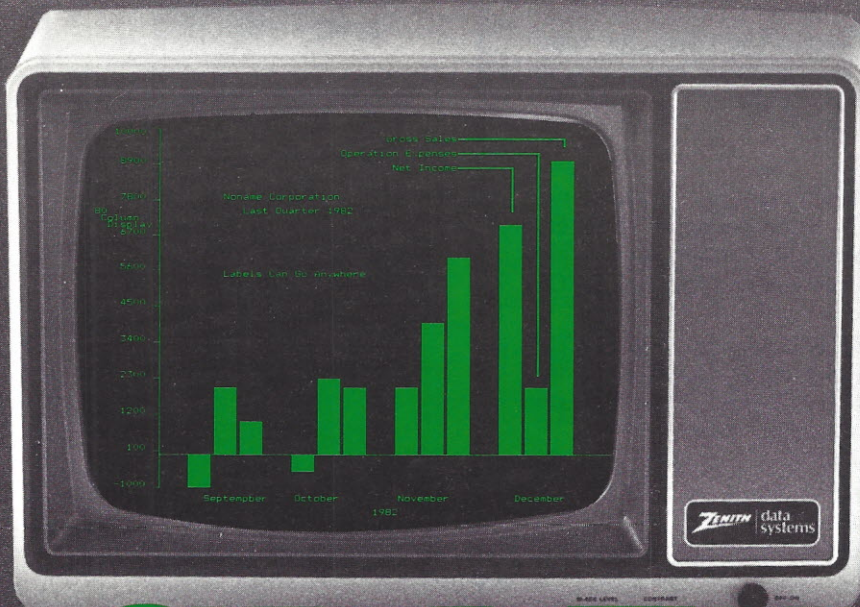
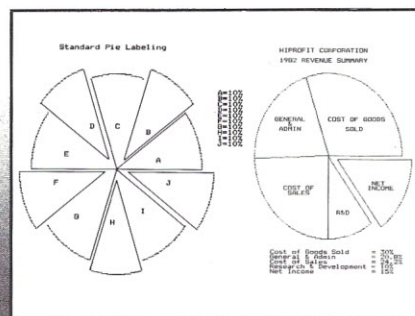
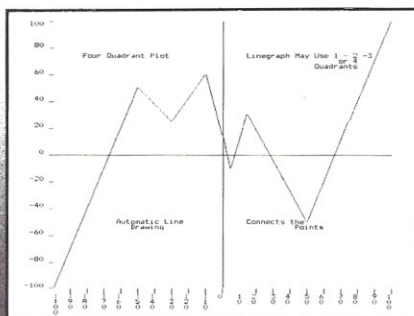
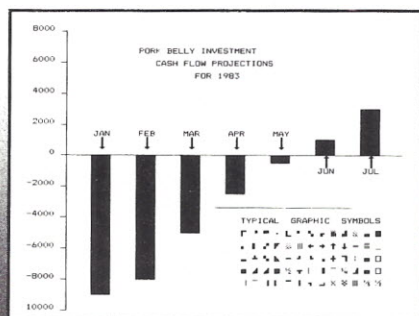
- You can vary the size of pie charts, printing two or three per sheet, while selecting and exploding important slices.
- Within charts, bars can be clustered together, or spaced evenly across the page.

- You can plot separate points, or automatically draw lines to connect the points.
- You can overlay charts and graphs on the same printout.
- Pie location can be controlled on the page.
- Print on 8½" x 11" or expanded 15" paper.

Professional, Down-to-Business Features!

- Bar graphs, pie charts, line graphs, scatter plots, freeform labelling, superimposed graphics, autoscaling.
- Capable of supporting many popular dot matrix printers, including Epson, NEC, Oki-data, IDS and C.Itoh.
- Capability to interactively create and edit graphics on the CRT.
- Automatically plots mathematical equations.
- User-friendly menus.
- Custom designed for the Osborne 1.

High Resolution You Asked For It... You Got It!



GRAFIKS 2.0

Osborne 1 is a trademark of Osborne Computer Corporation. CBASIC is a registered trademark of Compiler Systems. SUPERCALC is a registered trademark of Sorcim Corporation. MBASIC is a registered trademark of Microsoft. WORDSTAR is a registered trademark of MicroPro International Corporation. Grafix created by Todd Hammond.



Every Executive Needs an Organizer Like T.I.M.[®]

Your valuable business information needs to be organized. T.I.M. can do it easily and quickly on your Osborne I. As the executive's data base management system, T.I.M. makes it easy for you to assemble all your information so it can be ordered, changed or retrieved and then printed to suit a variety of circumstances. From phone lists through complex sales reports, T.I.M.

helps you put it all together using plain English commands — no programmerese to confuse you. Plus T.I.M. interfaces with all of the most popular word processing systems as well as powerful tools like Supercalc[®]... T.I.M. is the executive's solution that's simple to use, easy to learn and pays off in bottom line efficiency for you and your organization. For more

information see your local Osborne dealer or contact Innovative Software for the name of the T.I.M. dealer nearest you.



developers of
practical
businessware for
Osborne Personal
Computers.

T.I.M. III is sold at Computerland, Sears Business Centers, Xerox Stores, Computer Marts, Entre' Stores, Compu Shops and other independent dealers.

9300 W. 110th St., Suite 380 • Overland Park, KS 66210 USA • 913/383-1089 • Telex: 209542



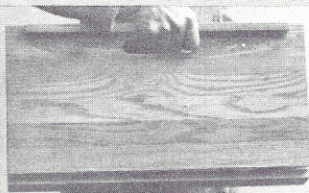
Are you tired of looking down on your portable computer??

Look it in the eye with the **Portable Stand!!**

Ergonomically designed, the **Portable Stand** will make your portable as comfortable to use as a full sized terminal!

No more backaches or eye strain!

Feel refreshed after a long session at the keyboard!



Hinged design allows stand to fold completely flat, with its own carrying handle.

Beautiful **solid oak** construction. Satisfaction guaranteed!

RAMSOFT

SPECIAL PRODUCTS DIVISION

PO Box 1
Leesburg, Indiana 46538
(219-453-3237)

PORTABLE STAND

A lasting value at only **\$49.95** plus **\$4.00** shipping in continental U.S.. ☐ Check, ☐ certified check, or ☐ money order

(Indiana Residents Add 5% Tax)

Make check payable to: **RAMSOFT**

Name _____

Address _____

City/State/Zip _____

Total Enclosed \$ _____

Quantity discounts available.

the Wizard of Osborne

are formatted for 16 characters causing the digit accuracy to expand. Try formatting your column to 10 units wide instead.

Reviewing your spreadsheet tells us you are dealing with dollar values, so you could use *SuperCalc's* dollar format (\$) to automatically round numbers off at 2 decimal places. However, this leads us to an interesting problem. Numbers that are rounded off in this manner are done so for visual display only, the memory still contains their proper values. When a total is performed on a column of dollar formatted numbers it is actually getting the values from memory, not from the display. Example:

	DISPLAY	MEMORY
A1	45.48	45.484
A2	32.27	32.2729
A3	5.06	5.0591
A5	82.82	82.8160

Note that 82.82 is not the sum of the display column of numbers, but reflects the rounded-off value of the memory column. If you can live with being a couple of pennies off, no problem. However, if your name is Arthur Andersen, CPA, then we had better come up with a solution to this dilemma, and here it is:

$\text{INT}((\text{cell}) * 100 + .5) / 100$
or $\text{INT}((\text{cell}) * 1000 + .05) / 1000$ for three decimal point accuracy.

This is a common programming trick used to round off numbers to two decimal place accuracy. Use it on the values A1, A2, and A3 to create display and memory values with two digit accuracy. For example, replicate the formula to cells B1, B2, and B3. Then do $\text{SUM}(B1:B3)$.

Q: I recently purchased an Osborne computer. Overall, I'm very happy with it. However, there seems to be a problem with my version of MBASIC concerning the CDBL double precision command. Check out this program:

```
10 DEFDBL N
20 NUM$ = ".9"
30 NUM = VAL (NUM$)
40 PRINT NUM
50 NUM$ = ".99"
60 NUM = VAL (NUM$)
70 PRINT NUM
```

.9

.990000000000000001

What's with the .990000000000000001?

A: If it makes you feel any better, we ran your program on our Ozzies and came up with the same result. We also ran it through an Altos with a different version of *MBASIC*, with the same result. Microsoft, the creators of *MBASIC*, obviously feel that a 1/10 quadrillionth error shouldn't hurt anyone, and we agree. To be fair, you did give us another example with a 1/2 millionth error (126.669998 instead of 126.67), so a discussion of this problem is in order.

MBASIC does not keep numbers in the same common Binary Coded Decimal (BCD) format that *CBASIC* uses. To save memory space and calculating time, Microsoft chose an alternate format. Unfortunately, a result of this decision is that numbers sometimes "overflow" the format, causing extremely small (.000001 or smaller) errors to accumulate. Computers are never perfectly accurate; we suggest that you always *force* the precision the computer uses as explained in the next paragraph.

Gary Cuevas, a contributing editor and *MBASIC* wiz, points out that you should use a rounding algorithm when dealing with dollars and cents. Interestingly enough, the formula is exactly the same as for the *SuperCalc* question above. For ease of repeated use, you may want to assign it to a user function key.

```
DEF FNA(Y) = INT(100*Y + .5)/100
PRINT FNA(Y)
```

Q: It may interest you to know that I have found what appears to be a bug in the *CBASIC* version 2.07 that was

Three good deals for Osborne™ users.

SuperCalc™ is already a good deal—the very best electronic spreadsheet you can own. Since you've been using it all this time, you already know that. Now, we're offering three very good deals so you can get even more out of SuperCalc than ever. Just send us the coupon for the good deal of your choice.

#1: The AnswerCard™

Here's a quick reference guide to help you get the most out of your Osborne SuperCalc quickly and easily. Send \$1.

#2: Sorcim Newsletter

Every issue of our SuperNews includes tips on new applications, template building, news from our programmers and development, and more.

#3: SuperWare™ Poster

A large (24" x 32") full-color poster: "Fly Sorcim SuperWare." Send \$1 for handling and postage. (Limited supply available.)

Coupon #1

Quick, send the AnswerCard. My \$1 is enclosed.

Name _____

Title _____

Company _____

Address _____

City, State, Zip _____

Coupon #2

Yes, I want to receive SuperNews.

Name _____

Title _____

Company _____

Address _____

City, State, Zip _____

Coupon #3

I can't wait to see my SuperWare poster!
My \$1 is enclosed.

Name _____

Title _____

Company _____

Address _____

City, State, Zip _____

SuperCalc
by Sorcim

 **SORCIM**

WE LEAVE THE REST BEHIND.

Sorcim Corporation
2310 Lundy Avenue, San Jose, CA 95131
408/942-1727



"You don't have to have Lady Luck to get the best software deal in town."

Free* Software

OSBORNE USERS

Over 200 public domain software programs including many popular games, valuable utilities, and useful specialty programs (modem, ham, etc.), are available to you **FREE** through the Public Domain Users Group.

—SAMPLE DISKS—

I. GAMES - MBASIC

Eliza, Startrek, Othello, Baseball, Dots

II. GAMES - CP/M

Adventure, Biorythms

III. UTILITIES - CP/M

Contains over \$100 worth of valuable CP/M utilities! (14 programs)

* A \$10/disk service charge is made to cover the cost of the disk plus handling and shipping charges—the software is free!

Special Offer!
All 3 for only \$25

Send check or money order to:

A-1 COMPUTERS, Inc.
P.O. Box 1442
Orange Park, FL 32067

A complete listing of available programs will be sent with each order.

Please allow 2-3 weeks for delivery.

the Wizard of Osborne

included with my Osborne 1 computer.

```
DIM SS$(20)
FOR I=1 TO 20
SS(I)="PRINTEST"
NEXT I
FOR J=1 TO 30
PRINT SS(J),
NEXT J
END
```

produces output similar to the following:

PRINTEST	PRINTEST	PRINTEST	P
RINTEST	PRINTEST	PRINTEST	P
RINTEST	PRINTEST	PRINTEST	P

The problem may, of course, be in my hardware or software, so I would appreciate knowing if you find this bug in other units.

A: This is not a bug.

When printing NUMERIC values that exceed the line width, the number is printed on the next line. STRING values—such as yours—are output until the line width is reached and then the remainder of the string is printed on the next line.

Q: I have encountered a problem in attempting to reconfigure CP/M on my Osborne. As distributed, my version of CP/M defines LST:=CRT:. I would like to change this to LST:=LPT:. I have attempted unsuccessfully to use SYSGEN, followed by either STAT or DDT, followed again by SYSGEN to effect this change. Could you please tell me how this may be accomplished?

A: A little background for our readers: Reconfiguring the IOBYTE list device for LPT: instead of CRT: changes it from serial to Centronics parallel.

Well, guess what. We have a handy program that performs this miraculous feat in about 10 seconds. It's called SETUP and is the Osborne configuration program. No need to worry about STAT, DDT, SYSGEN,

LST:=LPT: etc. See your *User Reference Guide* for details.

Q: I think I found a bug in *SuperCalc*. When moving the active cell by pressing the arrow key down, the display may jump erratically sideways and garbage may appear on the screen. Help!

A: Your "Auto Horizontal Scroll" is ON when it should be OFF. Run SETUP using the instructions found in your *User Guide*. (Don't forget to press the RESET button after SETUP is used to reconfigure a diskette.)

MISSING WIZARD

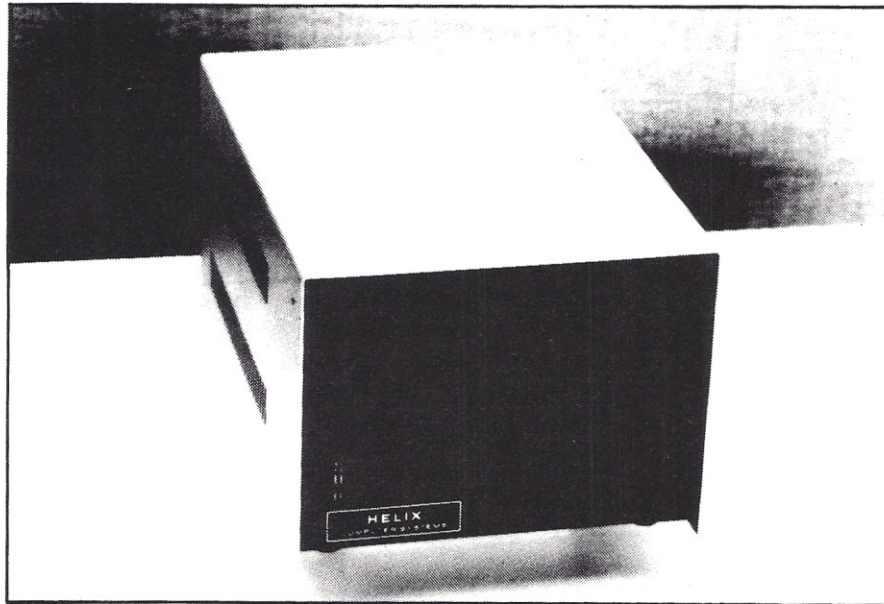
As of March 1, I am taking a leave of absence from Osborne Computer Corporation. Please address your future questions and inquiries to the appropriate department within Osborne. Questions for the Wizard should be addressed to Brad Baldwin. Best of luck with your computing.

—Thom Hogan

HELIX

Winchesters Now Available For The Osborne 1™

- Z-80 adaptor card leaves external ports free and increases the speed that your information is displayed



- Easy to install
- Easy to follow instructions
- Ribbon cable disconnects for portability

**10 MB
\$3,000**

**5 MB
\$2,500**

15 MB — \$3,500

MICRO COMPUTERS OF NEW ORLEANS 4539 I 10 Metairie, La 70002
504 885-5883 800 535 8813

FREE
with software purchase
ONE CP/M HANDBOOK

DISCOUNT SOFTWARE

OSBORNE 1™ COMPATIBLE SOFTWARE

* = indicates Custom Download. Allow 2-3 weeks delivery.
(More software available when double density disk drives are released)

LANGUAGES

PRODUCT	MANUFACTURER	DISK & MANUAL/ MANUAL ONLY
*CB-80	Digital Research	\$500/30.00
Forth (Z-80 Version)	SuperSoft	\$149/30
Fortran W/Ratfor	SuperSoft	\$300/35
*C' Compiler	SuperSoft	\$200/20.00
*LISP	SuperSoft	Call
*ADA	SuperSoft	\$250/NA
*CICSOBOL	Micro focus	\$850/NA

UTILITY PACKAGES

*Z-SID	Digital Research	\$ 90/15
*DeSpool	Digital Research	\$ 30/10
Edit-80	Microsoft	\$120/NA
*Crosstalk	MicroStuf	\$150/NA
Lynx	Redding Group	\$250/NA
TRANS 80,86,65,69	Sorcim	\$125/NA
Diagnostics II	SuperSoft	\$100/20.
Utilities I or II	SuperSoft	\$ 60/NA

APPLICATION PROGRAMS

FABS	Computer Control	\$195/20
Ultra Sort II	Computer Control	\$195/25
Micro B+	Faircom	\$259/20
Mathe Magic	Int'l Software Marketing	\$ 95/NA
Super M-List	SuperSoft	\$ 75/NA
Stats Graph	SuperSoft	\$198/NA

STATSGRAPH

Use your OSBORNE 1 to perform statistical analysis and graphing! Includes pie graph, bar graph, and scatter graph.
No special graphics hardware needed \$198.00

**ORDERS ONLY—CALL TOLL FREE VISA • MASTERCHARGE
1-800-854-2003 ext. 823 • Calif. 1-800-522-1500 ext. 823**

Outside Continental U.S.—add \$10 plus Air Parcel Post • Add \$3.50 postage and handling per each item • California residents add 6% sales tax • Allow 2 weeks on checks, C.O.D. \$3.00 extra • Prices subject to change without notice. All items subject to availability • ®—Mfgs. Trademark. Blue Label \$3.00 additional per item.

THE DISCOUNT SOFTWARE GROUP

6520 Selma Ave. Suite 309 • Los Angeles, Ca. 90028 • (213) 837-5141
Int'l TELEX 499-0446 DISCOSOFT LSA • USA TELEX 194-634 (Attn: 499-0446)
TWX 910-321-3597 (Attn: 499-0446)

WORK WITH PORTABLE SOFTWARE.

Attender™ - Keeps track of attendance for up to 600 for school, church, work. Formats the data in a number of ways for either a quick check or a printed report. Provides all data needed for state requirements. \$21.95

Grader™ - Accounts for attendance and grades for 160 students per disk. Ease of entry makes updating and initial entry a breeze. Just as in Attender, grades and attendance can be reported in a number of ways for a short reference or a printed report for posting or for giving to students. \$26.95

GraderII™ - Same features as Grader above, but with added statistical package and multiple classes on the same disk. Allows grading by standard deviation, bell curve or pre-set percentage criteria. A great tool for painless letter grading. \$36.95

Labler™ - A great little program that turns out tremendous labels in quantity on an Epson MX80 or MX100! Uses all the Epson™ features, but does not print from data files. \$17.95

Pollster™ - A program which helps you write a questionnaire, and then administers it to a group of people. With this program you can poll or test from one to one thousand. Both questions and answers are stored on disk for easy access. Results displayed or printed. Use with a data base manager for tabulation, or by itself for your own scanning and organization. Perfect for politicians, educators, . . . Set it up and let it ask people what you want to know. \$31.95

Quik-Ref™ - MBasic programmers take note! This is the tool for you. Provides quick sorting of all referenced LINE NUMBERS and VARIABLES for MBasic programs. Stores on disk or simply prints. Save hours of frustration wondering which lines call that subroutine. The price is right! Others are selling slower programs for almost 400% of our \$19.95 bargain. \$19.95

The Lectionary - If you know what it is, you know you want this tool. All three years of RSV text in an easily referenced format for use with WordStar. \$32.95 for three single density disks or \$24.95 for one double density disk.



216 Penn Avenue
Oxford, Pennsylvania 19363
(215) 932-5515

You Can Mix Business with Pleasure

Special Offers

Family Pack

Includes:

Valor
Acid Rain
Tag
and Land (an easy target game)

Price: \$44.95

Addict Pack

Includes one of EVERY game we currently carry,

PLUS a surprise game not yet released!

Price: \$150

Note: This offer expires 7/1/83.
Available mail order only.

DISKS DISKS DISKS

With the mail order purchase of any of our software, you may also purchase a pack of 10 Scotch™ double density disks for the hilariously low price of \$25.00.

Portable Software specializes in software for the Osborne computers. Our programs are written specifically for them and feature their standard graphics. All but Pollster are in fast machine language. All our programs will work with any width monitor, single or double density drives.

If your dealer does not carry Portable Software, or is out, you may order directly from us. Add \$2.00 shipping. Checks, MasterCard or Visa acceptable. Write for a free catalog/poster. Dealer inquiries invited. Authors! Let us market your creations! Our office is open 10:00 a.m. to 4:30 p.m. EST. Order line open 24 hrs.

Dealers in your area:

ALASKA - Yukon Office Supply - Anchorage
ARIZONA - Sidetrack Productions - Tucson
CALIFORNIA - Computer Post - San Diego
FLORIDA - Xerox Store - Clearwater
MPS Enterprises - Lakeside
Computer Village - Miami
HAWAII - Capacity Plus - Maui
INDIANA - Morgan Office Supply - Richmond
IOWA - Beacon Micro Computer - Ames
KENTUCKY - Lexington Computer Store - Lexington
MARYLAND - Balance Computer Center - Baltimore
MASSACHUSETTS - Computer Source - Pittsfield
MINNESOTA - Cartwheel - St. Paul
MONTANA - Montana Micro Computers - Great Falls
NEW YORK - Lela Computer Suitors - Albany
47th Street Photo - NYC
OHIO - Micro Electronics - Columbus
OKLAHOMA - Southwest Enterprises - Broken Arrow
Norman Business - Norman
PENNSYLVANIA - Computer Workshop - Monroeville
TEXAS - Software Access - Irving
Agriplex Computer - Lubbock
UTAH - Mastermind Computers
BRITISH COLUMBIA - Arctic Data Corp. - Prince Georges
ONTARIO - Lanpar - Markham
MCL - Scarborough
HONG KONG - Panda Corp.
GERMANY - Osborne Computer Corporation
SINGAPORE - Singapore Technical Services

And all COMPUTERLANDS!

Osborne 1 is a trademark of the Osborne Computer Corporation. Most everything else is either our trademark, or someone else's, but don't you get tired of these little notices at the bottom of ads?

**PORTABLE
SOFTWARE**

216 Penn Avenue
Oxford, Pennsylvania 19363
(215) 932-5515

PORTABLE, TRANSPORTABLE OR ERGONOMIC BACKACHE

Peter Aaron

Let's confront the scoffers and cynics right up front. They claim the Adam Osborne-inspired portable computer is a gimmick. How can he call these 26 pound, lead-bottomed sewing machines portable? He may even be in collusion with the American Society of Chiropractors, receiving a kickback for every patient who throws his back out transporting his portable computer.

You not only pay with your back, critics say, you pay with your eyes. Here's where the Osborne owner endures the umpteenth variation on the question, "Say, partner, how do you see that ensy-weensy screen? Man could go blind readin' that thing."

Let's take the last charge first and give our squinty-eyed colleagues their due. The characters on the Osborne five inch monitor are 60 percent smaller than the characters on a full-sized monitor. But the point is, they are big enough if you are sitting in front of the Osborne and not rubbernecking over someone else's shoulder. And the minor discomfort is more than compensated for by the portability.

"Really," the stuttering sluggards of stasis exclaim. "Even if we bought a portable computer, we would never move it." As William F. Buckley would say, there is no persuading the invincibly lazy. For these few, a handle on a computer only serves as a nagging reminder of their lumpish souls.



Why buy a portable computer? Well, when was the last time you wanted to move your desk at the office? If you don't mind the cacaphony of raucous laughter, snorting, belching, bells, and whistles that come rolling over your four foot partition wall, then I say, don't buy an Osborne.

I, for one, would rather expend a few calories moving my computer to a quieter area than listen to a gaggle of programmers jabber on about their latest string variable. If the noise still bothers me, I have the option of taking my office home.

Which brings us to the portable versus transportable controversy. In the industry press, the state-of-the-art translation for portable is now transportable. What's the difference?

Well, the knowing critic points out that a truly portable computer would be small and light enough for the average person to carry through an airport terminal without the arm sending a message to the brain, "I am about to fall off."

Here the critics have a stronger point. Carrying most portable computers across an airport terminal can be tough, even for the fully aerobicized. A fold-up luggage stroller is admittedly a blessing.

But this linguistic downgrade from portable to transportable can be misleading. When moving your computer from one office to the next, or from one room to the next, a portable computer is truly portable. You just can't pack up and move an Apple II with detached monitor, disk drives, modems and other peripherals with the same ease as a fully integrated portable computer.

Once you've trained yourself on a computer, and begun to funnel all your work through its keyboard, it's almost impossible to get by without it. If you write on a computer, as I do, you face acute writing phobia when you must revert to the scrivener's task of scratching pen over paper.

My Osborne saves me from ever facing that terrifying prospect again. No matter where I go, whether to my study at home, my company's office across the country, or even to the beach, I know I can bring my intelligent slave along.


Coupled with my modem, my computer gives me access to the mainframes at corporate headquarters as well as data bases, news services, and information networks anywhere in the world. And I am not locked in to working at my five by five plasterboard cell at the plant.

Which brings us to the real reason I like my Osborne: it's easier to sneak out of the office. Let's be frank. Not many American corporations have publicly accepted, and perhaps never will, that many of their employees can do their jobs

better at home than at the office. Yet the unofficial credo of business managers is, if the work gets done, we don't ask questions.

So many managers look the other way when their good employees sneak out early or come in late because they know they're working at home.

I am not suggesting that you can dispatch all your work while getting a tan at the beach. I am suggesting that you could do some of it. And the delicious freedom of knowing you could set up your office on a sun-splashed strand of Newport Beach can be enough to survive the office blues one more day.

Now if you want to sit shackled to your desk from eight to five for the next 40 years, I say, don't buy a portable computer. But if you want to stroll by your boss's office as you arrive for work at eleven o'clock, I suggest that you have a portable computer attached to one arm. 



Syndicating with your Osborne

Multiple and electronic submission of freelance articles

David Kline

We've all heard the testimonials. The plastic surgeon in Beverly Hills who writes, "how Osborne solved my billing system mess and prevented bankruptcy." Or, how about, "Bless you, Osborne, for saving our 400,000 acre family farm." And then, of course, there's the obligatory tax lawyer who writes in tearful gratitude to Osborne for putting his legal records back on track and getting the IRS off his back.

Not exactly "Queen for a Day" is it? Those people could have all bought IBM Display Writers out of their lunch money. I'd like to talk about one group of professionals who really need the Osborne. I mean, really need it bad. They're perhaps the most under-paid, unrewarded white collar group in America—far worse off than secretaries, by a long shot.

I'm talking about the freelance writer. Not the estimated three percent or so of freelancers who make a very good income. The other 97 percent. Nothing offers these poor souls as much hope of making a decent buck next year as the Osborne portable computer. Actually any computer will do. But freelancers tend to drift towards things like \$1 movie theaters and 1971 Volkswagens anyway. And the Osborne is nothing if not the Volkswagen of small computers.

Surprisingly, given their economic status, freelance writers actually hold a pivotal position in American journalism. With rare exceptions, it is the freelancer who reports first from the Nicaraguas, Vietnams, El Salvadors,

Afghanistans and other trouble spots around our globe. Likewise the freelancer has generally been in the vanguard of writers and commentators exploring such key social issues here at home as the environment, women's rights, and whether or not nuclear war is worth winning.

Why should the freelancer, though a journalistic success, be such an economic disaster? Simple: he or she is solitary, unorganized and plentiful in the extreme. So unless you're Norman Mailer, you need all the help you can get to survive as an independent, self-employed, freelance periodical writer in America.

That's where the Osborne comes in.

I own an agency for freelancers, Impact Features, which represents a very small group of very good writers. Impact acts as agent in soliciting article assignments and negotiating fees for these writers, and also syndicates their articles to about 40 major newspapers and regional magazines. We also run a small but active lecture service featuring journalists who can talk about the world's hottest trouble spots.

Whether you're an agency or a solitary writer, however, the theory is basically the same: if they're only going to pay you a tenth of what they should (and as someone who respects his own work, you should negotiate that up to a third), you'll just have to sell it ten times. Or become ten times more productive (without becoming a hack writer).

The only practical way to do that is

to invest in a computer, preferably a cheap but powerful one like the Osborne.

I won't go into all the everyday details of how the Osborne helps me run the business itself. I'll concentrate instead on some of the many aspects of writing and submitting articles, and especially on the question of syndication, which is the chief income-generating function that the computer can perform for the writer. I'll also describe how you can submit your stories electronically to some publications. But first a few words about why a computer is so valuable to me simply in terms of everyday writing.

In my own case, what decided me on getting the Osborne was a log I kept of how I spent my time writing: 40% writing, 60% re-typing. I don't work from outlines; instead I create and plan and write and then re-create and re-write at the keyboard. On a typewriter, that's a lot of wasted work. On a computer, the spontaneous or even undisciplined writer like myself (I prefer the label "intuitive") can really soar.

It's not simply a matter of increased productivity. I also think this machine encourages me to be more creative, and I'm one of those who for years looked down his nose at the very notion of cluttering a writer's insights with electronics. Specifically, the computer makes it easy to experiment, to put down flashes of style or insight, because I know how easy it is to alter what I write, to make either substantial or subtle changes in the article.

Usually before one writes an article, of course, one has to get an assignment from a magazine. So as not to spend a whole year trying to land an assignment—querying first one magazine, then another—writers must send out what are called "multiple-submission" queries to a number of potential magazine buyers. One problem, however, is that editors

often puff up in florid outrage when they receive Xeroxed queries. Solution? Punch them out on a letter-quality printer.

Furthermore, with the computer, one can also better target each version of a multiple-submission query to each magazine's style. A general story idea on the likely impact of personal computers on society, for instance, (hey, that's an idea!) would take a different shape and tone depending on whether it was being written for the *New York Times Magazine*, *Esquire*, *Playboy* or the *Atlantic*. With a computer, one can maintain a skeleton proposal on diskette, and flesh in each new version to match each publication's identity.

The Ins and Outs of Syndication

Now we come to syndication, the task of "selling it 10 times" mentioned earlier. Since we're talking about syndicating an article across the country, it is assumed that the article is of national scope or interest. At Impact, I choose the likely markets and write brief letters to the appropriate editors at each publication, explaining the significance of the story and the qualifications of the writer, and offering information like the availability of photos, etc. If the piece is being sent both to Sunday magazine sections as well as daily news sections, then different versions of the same article will be written and edited—a shorter, newsier version for the dailies; and a longer, more colorful, in-depth piece for the Sunday sections.

Before purchasing the Osborne, it took between two-and-a-half and three days to complete an average syndication. Now, with *WordStar's* editing abilities, the printer's speed in punching out a fresh, clean document in minutes, and *MailMerge's* capacity to generate a large number of "personalized" letters from a single-letter-document, it takes a few hours at



"They're perhaps the most under-paid, unrewarded white collar group in America—far worse off than secretaries. . . ."



If they're only going to pay you a tenth of what they should . . . you'll just have to sell it ten times."

most. The articles themselves may be either Xeroxed or originally printed.

In performing the letter-writing and addressing function, the only weakness of *MailMerge* is its inability to select out certain names and addresses within a larger mailing list. This would be useful because often a syndicated article will be sent to some publications and not others. Thus, using only *MailMerge*, I have to either continually create specialized lists out of larger ones or else undertake some unnecessary printing that winds up in the round file. I understand that the *Mailman* program as well as other CP/M data base and mail list software solves this problem.

New software just coming out—such as *Write Track*, (Gradan Consulting, Thousand Oaks, CA.) which does just what it says and tracks the progress of queries, manuscripts, or articles in syndication—makes multiple marketing by the individual writer easier still and thus more profitable.

The bottom line on the value of computer-aided syndication? When I bought the Osborne in January of 1982, I expected to have it paid for in nine to twelve months. Syndicating with the Osborne allowed me to recoup the expense of the machine in a few weeks.

Electronic Submission of Articles

Unbeknownst to most journalists, computers also open up a broad new avenue for independent writers both in syndicating and in reporting itself. In fact, the Osborne and similar machines may even spark a radical change in the ability of freelancers to actually compete with staff and wire-service reporters in what was formerly their exclusive preserve: fast-breaking news. I'm referring to electronic submissions—using a modem, the Osborne and appropriate software to file stories directly over the telephone to newspapers and magazines.

The advantages are obvious: bypassing a progressively slower and more expensive postal system, and avoidance at the receiving end of the need to re-keyboard or typeset the submitted articles. No longer need the freelancer be largely restricted to features, behind-the-news in-depth reportage, or commentary. Indeed, there's no reason now why he or she couldn't rush to the scene of the next Mt. St. Helen's disaster, type copy on his portable computer, and then file it over the phone while his AP counterparts are still struggling first with typed copy and then rekey-boarded telex.

My first experience with electronic submission, as readers of this magazine may know, occurred last April when I filed stories from the war zone in Afghanistan, across 12,000 miles of space for the *Chicago Sun-Times*. The experiment, for that's what it was given that no one knew if a modem would work over phone lines at that distance, proved a success, with a U.S. Robotics *Phone Link* modem, weighing only a few ounces, working perfectly. Indeed, one breaking news story I filed via my Osborne beat *Agence France Presse* and their telex to print by five hours.

At that time, however, I did not file directly to the *Sun-Times*, because their VDT system's modem program does not allow for error-checking, or "handshaking" communication. This is a function of software, allowing the sending computer to dispatch a group of 20 words or so and then to receive an acknowledgement from the receiving computer that the text has been received clearly and free of garbling. If static or other distortion has garbled that sector, it is re-transmitted, quite rapidly, until the whole article is transmitted.

Instead I transmitted first to a computer service acting as a relay—both of us used the excellent

public domain error-checking communications program, Modem 7—and then they transmitted without error-checking over the short, clear hop to the *Sun-Times* itself.

Apparently no American newspaper's VDT system does this error-checking as yet, at least with personal computers like the Osborne. But unless one is transmitting articles from the third world, where phone services are sometimes primitive, it's probably not necessary anyway. Any of the standard modem software programs like *The Micro Link* or *AM-CALL* will work just fine.

If there is a problem with electronic submissions from personal computers to newspapers and magazines, it's that the vast majority of editors and writers concerned don't even know it is possible. As a result, electronic filing by freelancers is almost unknown. Editors at the *Atlanta Constitution* and *Christian Science Monitor*, for example, report that I'm their only electronic contributor as yet, although all would like to see much more of this in the future. The *Chicago Sun-Times* has only two other electronic freelancers.

How is it done? It seems that there are at least half-a-dozen in-house VDT systems in use at American dailies: Atex, Telstar, PSI, DEC, Harris, and Hendrix are the most common. They all operate similarly, with the exception that the UART data-bit configurations vary from 7 bit, even parity to eight-bit, no parity. More varied are the control codes needed to format your text into their systems.

For example, here's what you have to type to get into the *Chicago Sun-Times* Atex computer system: dial their modem number, and transmitting at 300 or 1200 baud, 7 bits, even parity, begin your article with the following:

{ET(10 spaces){SLKLINE{QUWIR{BT
{ET orders an end to any previous articles that may have neglected to put their own "end text," with the

"left brace" before the ET signalling a command. {SLKLINE merely "slugs" the article with your name (in this case mine) or a title of some sort. {QUWIR routes it to the wire room with the {QU signifying routing, and {BT signifying "begin text."

The *Sun-Times*' system recognizes all line feeds and other CP/M type *WordStar* commands, but you should strip out *WordStar*'s print and dot controls before sending. The *Sun-Times* has its own indicators for "begin bold" and "end boldface": {M1, rather than *WordStar*'s ^PB.

At the *Atlanta Constitution*, which uses the Telstar system, everything is exactly the same as in Chicago except that you must put a ^K before every paragraph because their system doesn't recognize *WordStar*'s carriage return and line feeds.

At the *Christian Science Monitor*, which also uses the Atex system though a different version than the one in Chicago, I have transmitted both at seven bit, even parity and at eight bit, no parity. Is that possible? Must be, because I've done it. But here you have to place a ^B before each new graph. Again, their system doesn't recognize our carriage return, line feeds.

It should be pointed out that many major national magazines still do not have the VDT systems used by most large daily papers. Electronic submission is still possible, however, because almost invariably such magazines will have telex. From my Osborne, I have patched into the international telex network and, emulating a telex, have filed that way.

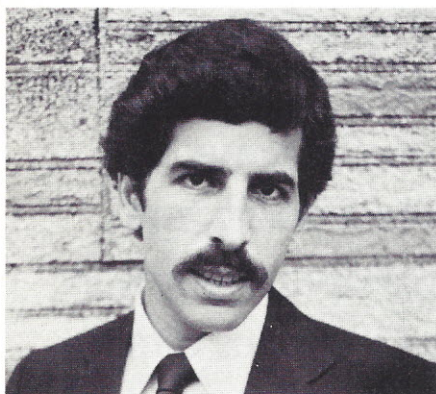
Graphnet, Western Union or one of the other patch systems allow you to dial a central number and then—indicating whether you want to emulate telex, send a telegram, or whatever—to transmit with your ordinary communications programs. Impact pays only \$5 monthly for its Graphnet subscription fee, plus the



"I'm referring to electronic submissions—using a modem, the Osborne and appropriate software to file stories directly over the telephone."

normal telex rates for time used.

Clearly, electronic filing will be as common for freelancers who own computers as it already is for staffers carrying portable terminals in a year or two. Explains David Anable, Overseas News Editor of the *Christian Science Monitor*: "We've only just started thinking about this for our stringers and freelancers, but ob-



Freelancer and agent David Kline.

viously it is something we'd like to see a lot more of."

"After all," he adds, "we've got three or four people employed doing nothing but re-typing freelance material submitted on paper, by mail, into our system, or else taking stories by dictation over the phone. Both methods, incidentally, are highly prone to error."

Says the *Atlanta Constitution's* National Editor Joe Geshwiler: "I'd like to see a lot more of our freelance contributors filing electronically. It saves us great amounts of time and energy. Copy gets to us immediately and we don't have to type it into our systems, the copy is easier to work with, and if we reject an article, we don't have to mail it back to the author. He has it in his own computer."

Mike McCarthy, an Osborne technical writer, recently queried two newspapers, the *Fresno Bee* and the *Cleveland Plain-Dealer*, on the subject of electronic submissions. The

Fresno Bee, which uses an SDC computer, responded favorably to the idea. Even more enthusiastic was the following response from CY Wainscott, Managing Editor at the *Plain-Dealer*:

"Editors will be less and less willing and/or able to accept hard copy as the technological evolution proceeds... If I were a freelancer, dependent on newspaper sales, I certainly would consider a remote portable terminal (or an Osborne) with phone transmission capability... a must."

As far as any potential drawbacks to computerized article submissions, Geshwiler and Anable both foresaw only one:

"It's one thing to get a lot of bad, unsolicited manuscripts in the mail," warned Geshwiler. "It would be much worse if a lot of writers got ahold of our input number and began cluttering up the system with a lot of unwanted material."

Added Anable: "There will certainly have to be some safeguards worked out or there could well be problems." Possible safeguards might be the use of passwords by regular contributors, passwords good for 24 hours only for occasional contributors, and perhaps a separate "Q" or routing point in the system for freelance-submitted articles.

In any case, the best thing to do is simply write and query the editor you're dealing with as to whether he or she would like your piece electronically submitted so that the paper's own typists don't have to re-keyboard it (and so they'll receive it now rather than days from now). If the answer is yes, then ask for the name of their "computer-honcho" and work out the details by phone. That person will either know, or can help you figure out, the various system requirements.

(A word of advice for programmers. The first one of you who designs a simple yet effective communications program which, after

determining which VDT system the newspaper uses, sets all protocols and strips in or strips out any necessary control codes on a piece of text, will make some money off people like me. Call me when you've got it).

To be sure, personal computers such as the Osborne open up vast new possibilities for improving and streamlining a freelancer's work and for making it much more profitable. But, as we all know, simply creating a mailing list of newspapers and "syndicating" one's articles will not produce automatic success. Invariably, it is the writer's talent and credentials which are decisive, as is the trust and confidence that editors develop in that writer.

Assuming, however, that one is a serious periodical writer with interesting story ideas, keen analytical skills, a sense of the ambiguity of human experience, and some talent in shaping the written word, it is no longer necessary to live in poverty while pursuing one's craft. Until the present structure of journalism is improved—meaning, until we improve it—the computer offers perhaps the next best hope to that uniquely American institution: the starving writer.

Bless you, Osborne, for being so damn cheap!

David Kline, 32, has reported from behind Afghanistan's rebel lines six times in the past three years, on assignment for the New York Times, Christian Science Monitor, and Chicago Sun-Times. His articles have appeared in a wide range of newspapers and magazines in the U.S. and worldwide, and his photos have appeared in Time, Newsweek, the New York Times Magazine and a variety of other publications. Kline is the originator of the cover photo for the premiere issue of The Portable Companion, depicting the Osborne 1 with a group of Afghanistan rebels.

Announcing a NEW Software Deal for the OSBORNE **NOW, Your OSBORNE can Write Programs for You.**

Your computer is fantastically fast...once it knows what to do. You probably realize that a computer is the combination of hardware and software, working together smoothly, to give you what you want. Either one alone is useless. Software is really the key...the "mind" of a computer system. Every project or task you want to do requires a new specific software application to make your computer behave exactly the way you desire.

Of course you may be able to "force fit" your application into some existing canned database you have, but to really get results, you need a separate application to run on your computer.

Until now, that meant you were forced to pay money for application software off the shelf, or if you could afford it, have it custom written for you, or, if you are qualified, do it yourself...spending endless hours figuring it out and writing it. Now, your computer can write individual application programs for you. These programs are each separate, unique software programs that run in the standard BASIC on your computer.

A Brand New Technology

A company named ICR FutureSoft has developed this exciting and long awaited remarkable working tool for you called QUIKPRO+. It actually writes separate BASIC Programs for you...to do exactly what you want to do. And it's simple and easy to use...you create a new program in minutes instead of hours.

You can quickly generate a new program when you want it. You can generate thousands of different unique programs, each

one standing alone as a complete program that runs in BASIC. Best of all, you do not have to be a programmer to use it. The QUIKPRO+ software becomes your personal programmer, waiting to do your work for you any time of day or night you choose to use it.

The custom programs you generate from this program will let you perform Personal Filing, Fast Data Retrieval, including Addition, Changes, Deletions and Searches and Reporting (if you have a printer). You can even include calculations in the programs that you create. QUIKPRO+ is ideal for creating Inventory Programs. In fact you can actually use QUIKPRO+ to create an easy to use Database Management program or a simple Spread Sheet or Calculation Sheet. You can do all this and more and have no BASIC Programming experience.

How Does It Work?

You do it simply by answering easy questions that appear on your screen. You won't have to learn any Computer commands or special Programming Languages. Instantly the QUIKPRO+ software instructs the computer to write efficient, error free, BASIC Programs and puts the Programs right onto your own disk, ready for you to use.

The resulting custom program is truly a separate BASIC program. You can list it. You can modify it. You can customize it to your own liking. You can actually see what makes it tick. If you want to, you can sell the programs you create, without having to pay royalties or fees.

Try It and See

QUIKPRO+ for the OSBORNE is available now and can be shipped immediately. This program has proven itself to thousands of CP/M, IBM, and TRS-80 users, and now it's available for the OSBORNE. As part of a special promotion to encourage you to try this next generation of computer software, you can order QUIKPRO+ for the Introductory Price of \$149 plus shipping and handling, and of course there's a guarantee.

You can order right now by phone or mail. If you have Visa/Mastercard, call Toll Free from:

All States except CA, AK, HI
1-800-824-7888, Op. #722

From California call
1-800-852-7777, Op. #722

From Alaska call
1-800-824-7919, Op. #722

Operators on duty 24 hours daily. Operators cannot answer technical questions. For technical information, dealer inquiries, or orders from other countries, you can call by phone **(904) 269-1918** during office hours Eastern Time, Mon.-Fri. or Telex 62112700.

Send mail orders with check, money order or credit card information to: **ICR FutureSoft, 1718 Kingsley Ave., Box 1446-S, Orange Park, FL 32073.**

ICR FutureSoft gives you a satisfaction guarantee for 10 days from delivery. You can run the software yourself in your own computer and see with your own eyes what it can do. **ORDER NOW.**

**Now yours
for only \$795.00
including interface* and
Strobe Business Graphics Software!**



The Strobe Graphics System: \$795. You can pay more but you can't buy more.

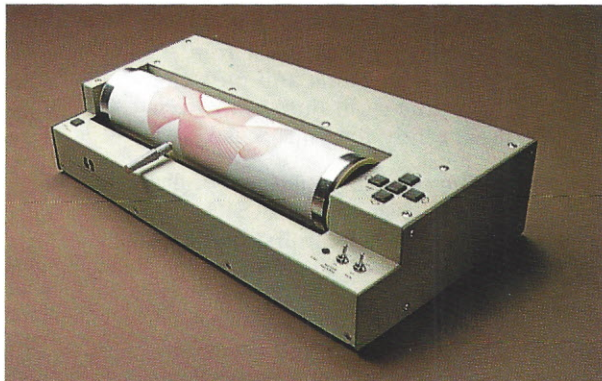
How to chart your company's fortune without spending one. It's a fact. A single chart or graph can tell you instantly what it takes hours to interpret from printouts or other raw data.

Now, with the Strobe 100 Graphics Plotter and Software package, you can create superb hardcopy graphics directly from your computer. And you can do it for a cost of only \$795.00.

The Strobe System transforms complex data into dynamic, colorful visuals with a few simple commands from your computer. Charts and transparencies that once took hours to produce are plotted within minutes. Information can be presented as bar charts, pie charts, curves or isometrics in a variety of colors. And with a resolution of 500 points per inch, the Strobe 100 matches or surpasses the quality of plotters costing thousands of dollars more.

You can also save and modify your graphics through Strobe's menu-driven programs. A broad selection of software is now available.

When the Strobe Graphics System is interfaced to your computer, an 8½ x 11 inch sheet of paper can speak anyone's language—visually. Visit your local dealer and learn how to start charting your fortunes today. Because a perspective on the present can also be your window on the future.



*For Apple, Osborne and Commodore computers.
For serial interface, add \$100.00.

I.R.E.T. INFORMATICA SPA
Via Bovio 5
42100 Reggio Emilio
ITALY
Tel. 52-2-32643
Telex No. 530173

PRESIDENT OFFICE MACHINES
Rea 100 George Street
Hornsby NSW 2077
Australia
Tel. (02) 476 2700
Telex No. 24527

JMM ENTERPRISES
115 Battersby Street
Enumclaw, WA 98022
Tel. (206) 630-1991

DAVID JAMISON CARLILE
CORPORATION
2049 Century Park East
Los Angeles, CA 90067
Tel. (213) 277-4562

The Strobe Graphics System
Seeing is believing

DYNACOMP

*The Leading Distributor Of
Microcomputer Software*

PRESENTS

PERSONAL FINANCE SYSTEM:

One of the most complete financial management packages available. Keeps track of all tax deductible items, bank deposits, monthly charges, cash payments and more.

Personal Finance System automatically deducts check fees, gives complete financial summaries for any category on a per item, monthly or yearly basis, prints results in detail or summary form, and even plots results on a monthly bar graph. Available on diskette/disk only. *Price \$39.95 (diskette); \$42.45 (disk).*

THE TAX OPTIMIZER

Evaluates various tax alternatives and selects the most advantageous method for preparation of individual Federal Income Tax.

With Tax Optimizer you can easily determine the advantages and disadvantages of projected financial decisions and actions.

Tax Optimizer evaluates several filing approaches and calculates the resulting tax liability for each one. This can be done for a series of years, so you can choose the approach with the overall best tax advantage. Comes with a 14 page instruction manual. Available on diskette/disk only. *Price \$59.95 (diskette); \$62.45 (disk).*

THESE ARE ONLY TWO OF THE HUNDREDS OF PROGRAMS AVAILABLE FROM THE DYNACOMP LIBRARY OF SOFTWARE PROGRAMS:

- | | | |
|----------------------|---------------------|------------------------|
| ■ Business/Utilities | ■ Education | ■ Engineering |
| ■ Adventure | ■ Thought Provokers | ■ And Much, Much More! |
| ■ Personal Finance | ■ Statistics | |
| ■ Games | ■ Card Games | |

Besides being the leading distributor of microcomputer software, **DYNACOMP** currently distributes software in over 60 countries. **DYNACOMP** provides **FRIENDLY, ACCESSIBLE CUSTOMER SERVICE** through our highly qualified and knowledgeable staff. **WE'RE AS NEAR AS YOUR TELEPHONE.**

DYNACOMP'S prices are highly competitive and we promise prompt processing of every order!

WRITE FOR A FREE, DETAILED CATALOG

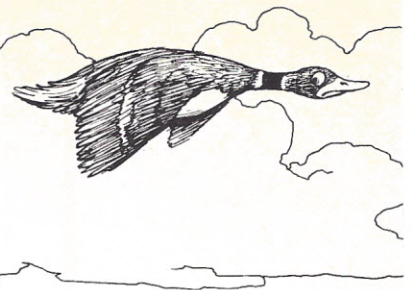
<i>Daytime</i>	<i>24 Hour</i>	<i>Office Hotline:</i>
<i>Toll Free Order Phones:</i>	<i>Message and Order Phone:</i>	<i>9-5 E.S.T.</i>
<i>(800) 828-6772 (800) 828-6773</i>	<i>(716) 442-8731</i>	<i>(716) 442-8960</i>

DYNACOMP, INC.

1427 Monroe Avenue • Rochester, NY 14618

DYNACOMP
APPLE
ATARI
IBM-PC
NEC
NORTHSTAR
OSBORNE
PET/CBM
TRS-80
SUPERBRAIN
CP/M DISKS
DISKETTES

DUCK!



A game program with moving graphics

by Peter H. Kelly

Duck! was written after I learned to use the direct cursor addressing system for the Osborne described by Kelly Smith in the first *Portable Companion*. It was written for several reasons. First of all, I wanted to show that the Osborne was more than just a superb business and word processing machine. In fact, I bought an Osborne chiefly to learn computer programming and the *Microsoft Basic 80* supplied with the machine is about as complete a form of *BASIC* as is available. Secondly, the program is sort of a celebration of the joys (or frustrations) of direct cursor addressing, after spending almost a year trying to achieve similar effects plotting endless blank lines with FOR NEXT loops.

Finally, the program illustrates the use of the important INKEY\$ function of *BASIC*, which is essential for arcade-type games where information must be inserted into the program without halting its execution. The most familiar way to supply information to a program from the keyboard is with the INPUT or INPUT\$ statements, which are very useful for

computational programs, but hopelessly disrupt continuity when graphics are moving on the screen.

Vengeful Ducks

The program essentially consists of ducks that fly randomly over a forest with the player concealed in a blind at the center. Generally the ducks are of gentle disposition but have a unique capacity to retaliate if fired upon. They also have a vindictive streak which manifests itself if the player becomes vulnerable by allowing too many of the protective trees to be destroyed. To do well, you must shoot a lot of ducks with the more difficult low angle shots before the ducks get you. The large supply of ammunition in the blind produces a rather spectacular explosion if you attempt too many of the easy overhead shots. The program was carefully written to incorporate several subtleties that prevent it from becoming trivial, and it takes considerable skill and practice to do well at the game.

Game Design Strategy

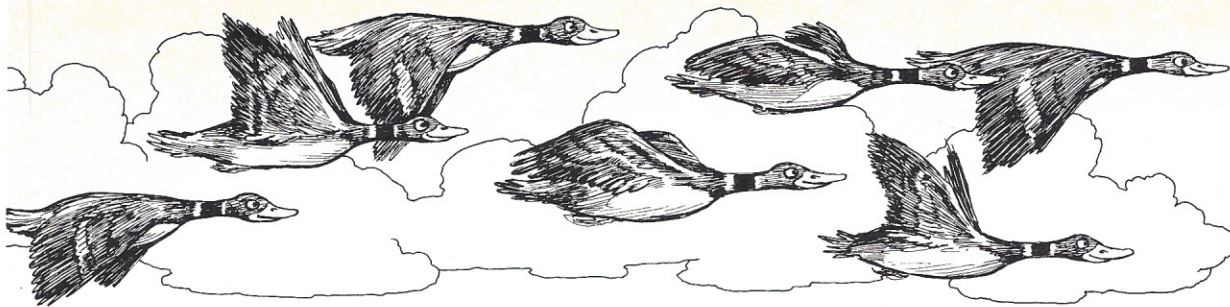
In writing this and other games it's apparent to me that some important rules must be followed if one is to create something that is both exciting and addicting. I would summarize these as follows:

1. A player must take risks to do well
2. The outcome of the game cannot depend on random events (i.e., improved skill must be proportionally rewarded by better scores)
3. Several options must be available so that a strategy can be developed over time
4. There should be exciting visual and (if possible) auditory effects
5. The game should be difficult to completely master

Using INKEY\$

As mentioned, the INKEY\$ func-





tion is essential to writing moving graphics programs where variables are passed into the program from the keyboard. The INPUT or INPUT\$ statements halt program execution whenever they are read and give the player no opportunity to decide when he wishes to intervene in the ongoing program. The INKEY\$ function, in contrast, can be embedded in a FOR NEXT loop that controls the moving screen display, and will insert a variable into the program without a pause. Each time the statement is read, the keyboard is scanned for a depressed key. The string value of this key is then assigned to the variable INKEY\$. If no key is being depressed, the value 0 is assigned. The INKEY\$ variable must be a single string character, and in order to convert to numerical data one uses the VAL statement (see line 640). This means that only the numbers 0 to 9 can be easily inserted into a program unless certain tricks are used (such as defining a string as a number). To use the INKEY\$ variable one merely has the program jump to another task if, for example, the value of INKEY\$ is greater than zero.

Creating the Illusion

The appearance of motion on a computer screen (or for that matter, any representation of it other than the real world) is actually a deception. In moving graphics programs, one plots an image along a path—allowing it to remain on the screen long enough for the eye to perceive it. The image is then immediately erased (or blanked) and plotted again at the next location. This is easy to do with the direct cursor system in the vertical or horizontal directions, but more of a challenge in oblique or curved trajectories. Lines 590 and 600 of the program show a FOR NEXT loop being used to plot the left to right motion of the duck. Here, the line

variable (X) is being held constant and the column variable is allowed to run across the screen. In the same manner, lines 1230 and 1260 show a loop that plots the vertical descent of a bomb. Here the loop is written to increment the line variable, holding the column variable constant (ignore all the S's and T's).

Oblique or curved motion can only be created with a little more thought. To do this, one must first have an exact idea of how the line is to appear on the screen. Then calculate the Y and X limits of the line using the direct cursor address scheme. Finally an algebraic expression is designed to roughly plot the line in this location. Loop variables can be manipulated to keep the plot within the limits of the screen, and constants can be added or subtracted from the expression for a precise fit. This can best be seen in lines 710 and 740 of the program, where the angled path of the bullet is plotted from the lower center of the screen. To get curved lines, one uses higher order algebraic expressions (such as X squared or Y cubed). These are trickier to use and quickly plot off the screen into oblivion unless modified by other parts of the expression. All this sounds rather complicated, but is actually quite simple with a little background in basic algebra.

A few final comments should be made about the use of screen blanking in creating the illusion of motion. As already mentioned, to make an image appear to move one must plot it along a specified path on the screen, erasing (or blanking) the previous image as each new image is plotted. This can be done using physical blanks ("" ") or with the ASCII blank code CHR\$(32). In horizontal motion, it is often possible to make the blanking process an integral part of the plotting routine in one line (see line 600), but more often we must write two identical lines: one plots the image and the second plots

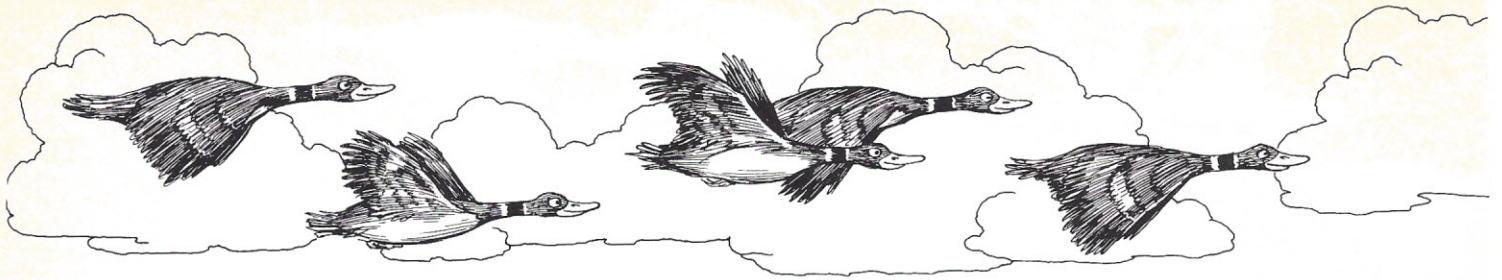
the same number of blanks as there are characters immediately behind on exactly the same path. Some consideration should be given to the length of time the image remains on the screen. This is obviously controlled by the number of program lines that are executed between the plotting routine and the blanking routine.

They can be placed one after another (see lines 1260 and 1270), or an entire program loop can be executed with the image on the screen before it is blanked for the new image (see lines 1590 and 1600). A longer image time may be desirable if the graphics are complex (such as exploding fragments), and shorter times used for simple projectiles, laser rays, etc.

Fast Graphics

The speed of the moving graphics on the screen is primarily controlled by how fast the microprocessor runs and how much work you are giving the computer to do within the graphics loop. Speed is maximized by simplifying arithmetic expressions and not forcing the machine to go through endless logic evaluations within the graphics loop. For example, line 760 prevents the machine from having to check for a hit of the duck until the bullet actually reaches the altitude where the duck is flying. To slow graphic movement, merely insert a dummy loop within the graphics loop, as shown in lines 1240 and 1250.

The program that follows is documented with multiple REM statements in order to give the reader some idea of what is going on. However, I strongly advise those hardy souls who do copy the program to remove REM statements to speed the game up and reduce screen flicker. I keep two versions of the program: one excluding documentation and one with the REM statements in case I forget how it was written.



```

100 PRINT CHR$(26)
110 PRINT:PRINT:PRINT TAB(10)"DUCK! By Peter H. Kelly M.D."
120 PRINT:PRINT:PRINT TAB(15)"September 16,1982"
130 PRINT:PRINT:PRINT:INPUT "Do You Want Instructions(Y/N)";I$
140 IF I$="N" OR I$="n" GOTO 300
150 PRINT CHR$(26)
160 PRINT "The object of the game is to make the most points"
170 PRINT "shooting ducks without yourself getting divebombed"
180 PRINT "or blown up. Points are awarded according to the"
190 PRINT "difficulty and angle of the shot; only four con-"
200 PRINT "secutive shots at the same angle are allowed. If"
210 PRINT "you miss, the duck may bomb you or your protecting"
220 PRINT "trees. If more than 5 trees are lost from one"
230 PRINT "side of your blind, you are liable to be dive-"
240 PRINT "bombed from that side; you can survive provided"
250 PRINT "your ammunition is not hit. The duck can also hit"
260 PRINT "your ammunition directly with an overhead bomb."
270 PRINT "POINTS: Shot ducks score from 10 to 50 points."
275 PRINT "Five bonus points are scored for each surviving"
280 PRINT "tree as long as at least one duck was hit. 20"
285 PRINT "points are scored for trees that survive through"
290 PRINT "an entire game, and zero bonus points are regis-"
295 PRINT "tered if no ducks were hit."
300 PRINT:PRINT:RANDOMIZE
310 DIM L(22)
320 FOR Y=1 TO 22
330 READ L(Y)
340 NEXT Y
350 PRINT CHR$(26)
360 M=0:N=0:Q=11:Z=11
370 D=INT(RND(1)*4)
380 PRINT CHR$(27)+"=";(CHR$(55))(CHR$(32));
390 FOR I= 1 TO 25
400 PRINT CHR$(27)+"=";CHR$(141);CHR$(32);
410 NEXT
420 PRINT " ";
430 FOR I=1 TO 25
440 PRINT CHR$(139);CHR$(32);
450 NEXT
460 PRINT
470 FOR J=1 TO 2
480 FOR I=1 TO 50
490 PRINT CHR$(150);
500 NEXT
510 PRINT
520 NEXT
530 PRINT CHR$(27)+"("";
540 PRINT CHR$(27)+"=";(CHR$(52))(CHR$(54));CHR$(32);CHR$(150);
CHR$(150);CHR$(150);CHR$(150);
550 PRINT CHR$(27)+"=";(CHR$(51))(CHR$(54));CHR$(32);CHR$(128);
CHR$(128);CHR$(128);CHR$(128);

560 PRINT CHR$(27)+"=";(CHR$(50))(CHR$(55));CHR$(138);CHR$(136);
CHR$(138);CHR$(136);
570 X=0
580 PRINT CHR$(27)+"=";(CHR$(32))(CHR$(33));"FIRE AT ANGLE 1 TO 9"
590 FOR Y= 0 TO 52 STEP 1
600 PRINT CHR$(27)+"=";(CHR$(33+X))(CHR$(32+Y))
;CHR$(32);CHR$(32); CHR$(152);CHR$(136)
610 IF X<18 GOTO 640
620 IF X=18 AND Y=23 THEN X=0:Y=0:GOTO 590
630 IF X=19 AND Y=23 GOTO 1390
640 LET A$=INKEY$:IF VAL(A$)=0 GOTO 820
650 IF VAL(A$)=H THEN C2=C2+1
660 IF VAL(A$)<>H AND VAL(A$)>0 THEN C2=0
670 IF C2>3 GOTO 820
680 H=VAL(A$)
690 V=V+1
700 PRINT CHR$(27)+"=";(CHR$(32))(CHR$(32));100-V;" Bullets Remaining"
710 A=6*VAL(A$)-30
720 S=X:T=Y
730 FOR X=0 TO -16 STEP -1
740 PRINT CHR$(27)+"=";(CHR$(49+X))(CHR$(57+INT(A*ABS(X)/10)));"*"
750 PRINT CHR$(27)+"=";(CHR$(49+X))(CHR$(57+INT(A*ABS(X)/10))); " "
760 IF S<>X+16 GOTO 790
770 IF T=INT(22+A*ABS(X)/10) OR T=INT(23+A*ABS(X)/10)
THEN GOTO 1120
780 IF V=100 GOTO 1400
790 NEXT X
800 GOSUB 1210
810 X=S:Y=T
820 NEXT Y
830 PRINT CHR$(27)+"=";(CHR$(33+X))(CHR$(86));CHR$(32);CHR$(32);
840 X=INT(RND(1)*(15+N))
850 FOR Y=52 TO 0 STEP -1
860 PRINT CHR$(27)+"=";(CHR$(33+X))(CHR$(32+Y));CHR$(138);CHR$(152);
CHR$(32);CHR$(32)
870 IF X<18 GOTO 900
880 IF X=18 AND Y=23 THEN X=0:Y=0:GOTO 590
890 IF X=19 AND Y=23 GOTO 1390
900 LET A$=INKEY$:IF VAL(A$)=0 GOTO 1080
910 IF VAL(A$)=H THEN C2=C2+1
920 IF VAL(A$)<>H AND VAL(A$)>0 THEN C2=0
930 IF C2>3 GOTO 1080
940 H=VAL(A$)
950 V=V+1
960 PRINT CHR$(27)+"=";(CHR$(32))(CHR$(32));100-V;
" Bullets Remaining "
970 A=6*VAL(A$)-30
980 S=X:T=Y
990 FOR X=0 TO -16 STEP -1
1000 PRINT CHR$(27)+"=";(CHR$(49+X))(CHR$(57+INT(A*ABS(X)
/10)));"*"

```




```

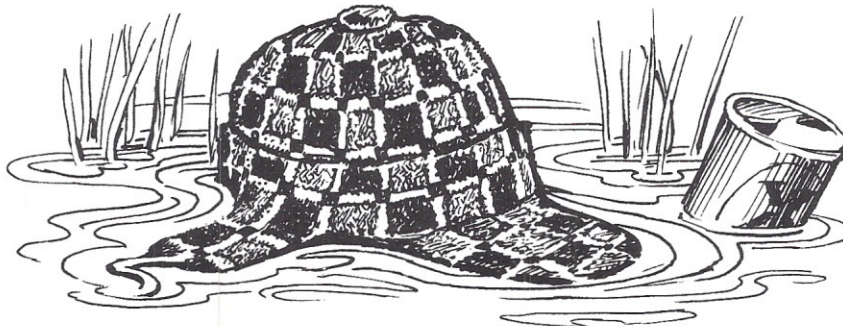
1010 PRINT CHR$(27)+"=";(CHR$(49+X))(CHR$(57+INT(A*ABS(X)
/10))); " "
1020 IF S<>X+16 GOTO 1050
1030 IF T=INT(25+A*ABS(X)/10) OR T=INT(24+A*ABS(X)/10) THEN
GOTO 1120
1040 IF V=100 GOTO 1400
1050 NEXT X
1060 GOSUB 1210
1070 X=S:Y=T
1080 NEXT Y
1090 PRINT CHR$(27)+"=";(CHR$(X+33))
(CHR$(32));CHR$(32);CHR$(32);CHR$(32)
1100 X=INT(RND(1)*(15+C))
1110 GOTO 590
1120 PRINT CHR$(7)
1130 P=P+ABS(VAL(A$)-5)*10+10
1140 PRINT CHR$(27)+"=";(CHR$(32))(CHR$(69));P;"Points"
1150 IF V=100 GOTO 1400
1160 FOR G=0 TO 3
1170 PRINT CHR$(27)+"=";(CHR$(S+33))(CHR$(32+13*G)); "
1180 NEXT G
1190 X=0:Y=0
1200 GOTO 590
1210 W=INT(RND(1)*3)
1220 IF W=>1 THEN RETURN
1230 FOR M=0 TO 19-S STEP 1
1240 FOR E=1 TO 20
1250 NEXT E
1260 PRINT CHR$(27)+"=";(CHR$(34+M+S))(CHR$(34+T));CHR$(141)
1270 PRINT CHR$(27)+"=";(CHR$(34+M+S))(CHR$(34+T)) " "
1280 IF T=D+21 AND M=19-S THEN GOSUB 1390
1290 NEXT
1300 FOR B=1 TO 22
1310 IF L(B)=T+2 THEN L(B)=-1:GOTO 1340
1320 NEXT B
1330 GOTO 1380
1340 IF T+2<21 THEN Q=Q-1
1350 IF T+2>27 THEN Z=Z-1

```

```

1360 IF Q<7 THEN C=5:PRINT CHR$(27)+"=";(CHR$(32))(CHR$(59))"DUCK !"
1370 IF Z<7 THEN N=5:PRINT CHR$(27)+"=";(CHR$(32))(CHR$(59))"DUCK !"
1380 RETURN
1390 GOSUB 1520
1400 PRINT CHR$(26)
1410 PRINT TAB(20)"GAME OVER"
1420 PRINT:PRINT:PRINT
1430 IF P=0 THEN 1440 ELSE 1460
1440 PRINT:PRINT TAB(10)"YOU BOMBED OUT -- NO POINTS SCORED"
1450 END
1460 IF V=100 THEN BONUS=20 ELSE BONUS=5
1470 PRINT TAB(10)"YOU HAD ";Q+Z;"TREES REMAINING WORTH"
1480 PRINT:PRINT TAB(17);(Q+Z)*BONUS; "BONUS POINTS"
1490 PRINT:PRINT TAB(13)"YOUR SCORE WAS ";P+(Q+Z)*BONUS;" POINTS"
1500 DATA 0,2,4,6,8,10,12,14,16,18,20,28,30,32,34,36,38,
40,42,44,46,48
1510 END
1520 FOR G=0 TO 21
1530 PRINT CHR$(27)+"="(CHR$(53))(CHR$(54+G)); " "
"; 1540 PRINT CHR$(27)+"="(CHR$(53))(CHR$(58+G)); " "
1550 PRINT CHR$(27)+"="(CHR$(54))(CHR$(54+G/2)); " "
1560 PRINT CHR$(27)+"="(CHR$(54))(CHR$(58+G/2)); " "
1570 PRINT CHR$(27)+"="(CHR$(51+G))(CHR$(55));CHR$(32);CHR$(32);
CHR$(32)
1580 PRINT CHR$(27)+"="(CHR$(50+G))(CHR$(55));CHR$(138);CHR$(136);
CHR$(138)
1590 PRINT CHR$(27)+"="(CHR$(52+G))(CHR$(56+G));CHR$(32)
1600 PRINT CHR$(27)+"="(CHR$(51+G))(CHR$(55+G));CHR$(128)
1610 PRINT CHR$(27)+"="(CHR$(52+G))(CHR$(56+G));CHR$(32);CHR$(32)
1620 PRINT CHR$(27)+"="(CHR$(51+G))(CHR$(57+G));CHR$(128);CHR$(128)
1630 PRINT CHR$(27)+"="(CHR$(53+G))(CHR$(56+G/2));CHR$(32);CHR$(32)
1640 PRINT CHR$(27)+"="(CHR$(52+G))(CHR$(57+G/2));CHR$(150)
1650 PRINT CHR$(27)+"="(CHR$(51))(CHR$(58+G));CHR$(32)
1660 PRINT CHR$(27)+"="(CHR$(52))(CHR$(55+G));CHR$(150);CHR$(32)
1670 PRINT CHR$(27)+"="(CHR$(51))(CHR$(51+G));CHR$(32)
1680 PRINT CHR$(27)+"="(CHR$(52))(CHR$(57+G));CHR$(32);CHR$(159)
1690 NEXT G
1700 RETURN

```



MicroVentures software...

When you want your computer to do the work.

MicroBookkeeper. A money-management system for non-accountants. Features...

Monthly, Quarterly and Yearly tracking of income and expenses.

- Chart of Accounts
- Credit Cards
- Vendors
- Checking Accounts

all defined by you, the user and managed by the computer.

Post-dating of regular payments, so they are automatically paid when due.

Automatic analysis of expenses by percentages.

Complete check register management.

Tax time help, through recording of all transactions in tax-relevant categories.

MicroMailer. A complete mailing list management system. Features...

Unlimited storage of names and addresses, each with up to seven identifiers for categorizing mailings.

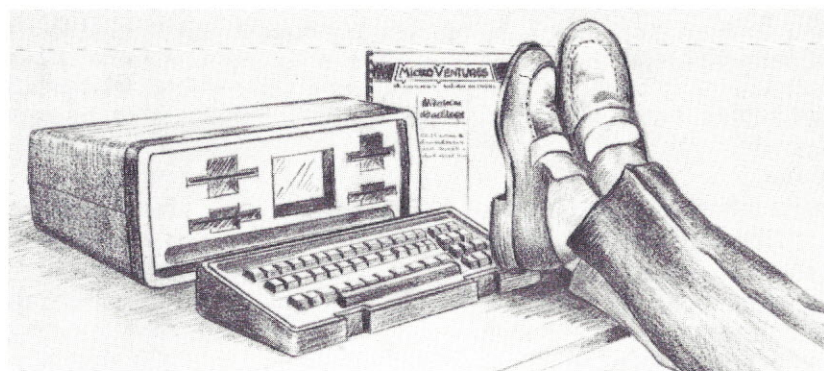
Complete sort capability: sort by zip, last name, city or any combination.

Automatic checking for duplicate addresses.

Compatible with WordStar™ to create Mail Merge™ data files.

Any size labels, up to five columns across.

Easy, direct editing capability.



MicroLibrarian. For ready access to a personal/professional library. Features...

Unlimited storage of articles or publications, each with up to seven keywords and an abstract.

Retrieval of publications by topic(s), title or author.

Automatic generation of keyword lists, so you always know what topics you have in your library.

Complete sort capability.

WordStar and Mail Merge are trademarks of MicroPro Int.

MICROVENTURES
software • training • consulting
P.O. Box 2802 / La Jolla, CA 92038-2802
(619) 453-7120

For your manual and diskette for MicroMailer, MicroBookkeeper or MicroLibrarian, send \$89.95 to MicroVentures, P.O. Box 2802, La Jolla, CA 92038-2802. (California residents add \$5.39 sales tax.) Send money order or check payable to MicroVentures or use Mastercharge or Visa.

Not sure? For more information, write for a free brochure. For a demonstration disk and the manual, use Mastercharge or Visa or send check or money order for \$30.00. (California residents add \$1.80 sales tax.) The \$30.00 is not refundable but is creditable towards eventual purchase.

Specify Osborne format.
Dealer inquiries invited.

The **First Osborne Group (F O G)** has been formed as a Users' Group for persons using or interested in Osborne Computers and the CP/M Disk Operating System with related Software. Membership is available to any interested party whether or not they currently own an Osborne Computer. **F O G**, the **FOGHORN**, and the diskette library are all supported by volunteer contributions of time, money, and software from all active **F O G** members. Guests are welcome at our meetings at any time (as long as they do not participate in Piracy or copying of Proprietary software), but dues of \$24.00/yr in U.S. or \$30.00/yr elsewhere are required in order to receive the **FOGHORN**, have access to the diskette Library, or derive other available benefits.



CUT HERE

First Osborne Group (F O G) Membership Application Form

	Yes	No	Maybe
NAME: _____			
ADDRESS: _____			
CITY: _____			
STATE: _____ ZIP: _____ COUNTRY: _____			
PHONES: _____			
O-1 Owner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Modem?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INTERESTS: _____			

Send the completed application and your payment to: **First Osborne Group (F O G)**, P. O. BOX 11683-A, Palo Alto, CA 94306

PRACTICAL EDITING

The fine art of honing a manuscript

Richard Drakeford

“... writing means making a rough draft and refining it over a considerable period of time. My image of myself as a writer includes the expectation of an ‘unacceptable’ first draft that will develop with successive editing into presentable form.”

—Seymour Papert

(MINDSTORMS: Children, Computers, and Powerful Ideas)

Editor's note: This is the first in a series of two articles on using your Osborne 1 as a writing tool. The material deals with word processing for the individual writer, rather than word processing as an office procedure for automated mailing, form letters, etc.

The metaphrases of word processing—“electronic cut-and-paste,” “refining rough draft,” “magnetic text editing,” indeed “word processing,” itself come easy to the tongue. Ready phrases, however, do not constitute an explanation of real processes that can be applied to a file of text. As Bogart learned, it is one thing to say that ore is refined to produce gold. But it takes concrete physical operations with pick and shovel and sluice and pan to extract the *Treasure of the Sierra Madre*.

Proceeding from there, this article presents some specific useful (in many cases non-obvious) editing operations that can be applied to collections of rough notes and which will result in an ordered preliminary draft. The literary merit of the product is not guaranteed—even with computers, that still depends on the judgment and taste of the human author.

When collecting notes, treat text like movie film: divorce production schedules from order of presentation. Movies are shot location by location and later pieced together in narrative order. The order of collecting notes—at your convenience—is different from the final order into which the notes are organized for

presentation—for the reader's convenience. The audience perceives no lack of spontaneity in the skillful pastiche known as *The Treasure of the Sierra Madre*, a product of editing.

Writers had to edit draft material even before the advent of computers equipped with word processing programs. The *logical* procedures of editing have not been changed by the Osborne 1 because those logical operations take place in the mind of the human author. It is the mechanical implementation of editing procedures, especially repetitive procedures, that is made easy by familiarity with *WordStar*.

This article pre-supposes a knowledge of the *WordStar* controls used for basic text entry. It does not duplicate the *WordStar* manual.

The Physical Procedures Of Editing

What are the logical processes that can be applied to a collection of notes or rough draft? Useful here is a definition-by-dissection of that jellyfish called “editing,” a breakdown that can serve as a short mental checklist of what you physically do to text to alter it.

Exhaustive analysis of the possible ways to transform text gives five specific operations. They are:

1. Cut.
2. Reorder.
3. Condense.
4. Add.
5. Polish.

The order in which the editing operations are performed is not critical. There is some labor-saving merit, as will be seen, in following the order given, but nothing prevents application of any or all of the operations at any time in the editing process.

The beneficial effect comes from using the mental checklist systematically, to make sure that at some time during editing every segment of text is considered for application of each and every operation so that all your words are completely processed. In this way the operations do resemble ore refining or grain milling machinery which gives uniform treatment to entire batches of material.

All your words go through a "cutting machine" and the dross is removed. The remainder is graded and sorted and arranged in batches by topic. Next the material is melted down and purified by processing through a condensor. Then new ingredients and spices are thrown into a hopper and combined with the mass. At the final stages, the rough edges are knocked off and the product is polished up.

Editing Tools: Linemovers

In preparation for editing, first make up an editing toolkit. On the *WordStar* diskette, use the Osborne's SETUP program to create a set of special function keys (SFK's) that will automate repetitive editing tasks. To start with, set up the following keystroke sequences:

SFK 7: ^QS ^KB ^X ^KK ^QC ^KV ^QV

SFK 8: ^QS ^KB ^X ^KK ^QX ^KV ^QV

Hot lead printers found it efficient to justify text and set print a line at a time using the Linotype. These special function key sequences allow you to handle text a full line at a time. Consider them your "Linotext."

The sequence of commands on SFK 7 amounts to a tool that will

grab single lines and send them to the bottom of the file in which you are working. You can use it to jot short (single line) notes at any time and put them aside for future reference. At any point in the file, put your cursor at the left edge of the screen and make a line for workspace by hitting ^N. Now jot a nit (shorter than a note), leave the cursor on the line and hit SFK 7. The nit will be transferred to the end of the file and your cursor will return to the location where you are working.

In addition to those jottings, any line or group of lines can be sunk to the bottom of the file. To move a four line paragraph, for example, just tap SFK 7 four times. It is easiest to use your left hand to hold down the control key and your right hand to hit keys in the number pad for executing special functions.

SFK 8 in the toolkit does the same thing, but the lines are moved to the bottom of the screen rather than all the way to the bottom of the file. (Actually, the lines go to the 23rd screen line, one line from the bottom.)

Lines successively sent to the bottom of the file by SFK 7 will come up in the order you sent them down, no matter whether you just wrote them or plucked them from the text. Each line goes to the bottom and pushes up the preceding line.

Just after stashing a line of text at the bottom of the screen file, it remains marked as a block. If you want to put it somewhere else such as another position on the screen, simply position the cursor and hit ^KV to bring the line to where you want it.

Preliminary Processing

Prior to starting an editing session, rake over your draft/notes to make sure that your ore is dressed to a uniform and convenient format for

processing and configured to the size of the screen. Conforming to a strict format will be an aid to automating subsequent editing operations—both you and the computer will be able to handle text note by note, paragraph by paragraph, if you mechanically harrow your materials to break up odd-size clods in the file. As follows.

After invoking *WordStar*, enter the file to be edited by using the "N" command at the no-file menu and calling up your file. You want the screen to hold as much text as possible—every little bit helps—so get rid of the *WordStar* help menu by setting a help level of 2 or lower. (Keep the manual nearby for quick reference rather than cluttering your screen.)

Work on notes and drafts in the Non-document mode rather than as full-fledged *WordStar* "Documents." The document mode has formatting features which, while pertinent to dressing up a finished product for printing, have no utility while working on raw materials.

You will want to turn ON the word wrap function (^OW) and set margins to hold the screen maximum 52 columns (^OR52<CR>) so that text entered automatically conforms to the width of the screen for you. Then, if the material you are working on is not already configured, re-form your entire file to 52 wide by using the repeating function ^QQ ^B. The cursor will zing through the file and trim all lines to 52 columns. Of course, if you have an Osborne with an 80-column display, set the margins wherever you prefer and reform the text accordingly.

When first entering a file, force the entire file into the computer's RAM by using the ^QC command to put the cursor at file's end. Subsequent jumping around within the file will not cause delays for disk access to fetch text (unless the file is excessively long). If left to itself, *WordStar* initially loads just a few screenfuls into

RAM and appreciable movement of the cursor causes disk-reading operations. On the Osborne 1, *WordStar* has room in RAM for files up to about 22K-bytes long.

Putting the cursor at the end of the file also displays the length of the file in characters and lines. Dividing the character count by five gives you a rough guess at the number of words in the file.

Now, if not already done, even though it takes up space on the screen by putting in blank lines, separate different notes and/or paragraphs of text by an extra carriage return/line feed. Course through the file down the left edge of the screen and hit the return key every time you see a new thought, even if it is only a line long.

With double carriage returns at the end of each note/paragraph you can later run through the file note by note by setting a Find operation (^QF) to find that string (Find? ^N ^N) and then pressing ^L to jump to the head of the next note.

Structuring the File

At any time during the drafting process, whenever the chance occurs, it is a good idea to attach distinctive tags, tracers, flags to the head of your notes/paragraphs to indicate a classification. Such tags may be a word like "[Beginning]", "[Middle]", "[Introduction]" or merely a symbol such as ".#" or ". +". Any earmark will do that will help you to find the material again and/or recognize its type by logical category, thematic content, or eventual location in a draft.

Note tags are useful aids to finding your way around in a file. Consistently earmarked notes may be searched for by type. Use *WordStar's* ^QF to find the first occurrence of the tag. From then on, ^L will jump the cursor to the next identical marker. During collation, this will help you pick out all notes of a cer-

"When collecting notes, treat text like movie film... Movies are shot location by location and later pieced together in narrative order."

tain category such as all notes tagged "[conclusion]."

To automate the elimination of tags when you want the file to appear as continuous text, write note headings as dot commands or double-dot comments in the first place. Dot command format tags will not print unless you answer yes to the "Suppress page formatting?" question of the print operation.

To eliminate the headings after they have served their purpose, you copy the file by printing it to disk. The resulting new file printed to disk omits dot commands just as though it was printed to paper and thus strips off all tags or headings entered in dot command format. (Be especially careful with formatting instructions when you print to disk to keep out unwanted spaces for default margins, etc.)

Flags are not only attached to particular notes. Once a draft has been ordered, or partly ordered, set up semi-permanent markers to use for jumping to particular segments of text/collected notes. Section headings in the form of double-dot comments (Example: "...[WINDUP REMARKS]) can be used as landmarks to help you quickly shift your viewer to a particular terrain. Use the ^QF function to find "...[WI", for example.

Cutting

"Whenever you feel an impulse to perpetrate a piece of exceptionally fine writing, obey it—wholeheartedly—and delete it before sending your manuscripts to press. Murder your darlings."

—Sir Arthur Thomas Quiller-Couch

With the computer as weapon, you can expedite murder of your darlings: you zap 'em electronically.

The Osborne 1 is a marvel at deleting unwanted text and excess notes. At this point, under the rubric of "cut," we are concerned mostly with drastic structural excision, rather than the minor trimming which will be accomplished later under "condense."

You get rid of duplicative stuff and trial shots that didn't come out well. You excise entire trains of thought that belong under different file headings. By default, what you don't cut you select to be retained and that selected material will be the basis for future editing.

Cutting excess notes/text is the holiest of the editing virtues, considerate of the audience but also a major boon to the editor himself. Cut text is done with and you can go on to the next chunk of material. Therefore, *always* give priority to the possibility of deleting a note or a segment of draft before you otherwise mess with it. The effect of a good cut is salutary, cleansing to the mind as well as the manuscript.

The cutting operation, when compared with ink on paper technology, is accomplished much more efficiently within the computer. Electronic inscriptions are instantly deleted, and the remainder is closed up and can be re-inscribed magnetically in a matter of seconds. If anything, the computer's power to delete is dangerous, and if you make trial cuts to simplify and shorten material, make sure you have a

backup copy of the file in case you go too far.

The Outline

One of the notes in your file may well be an outline of the prospective text, or a summarized table of contents. If you don't yet have an outline, you will need one prior to the operation of reordering. Sorting and reordering larger nuggets of thought in longer computer files is complicated because reordering is really a layout problem.

It is by the use of outlines and topic lists that the limited viewing capacity of the periscopic screen can be transcended. Although you cannot overview the entire note/draft file at once, you can easily view the model of a file found in an outline. And you can manipulate the model before bothering to manipulate the notes themselves. Just re-arrange the laid out bare bones to make a new skeleton schematic that guides future actual movement of material. A screen size outline can be a model for an entire book.

You can re-order a small outline by hand easily, with line move operations. Use your SFK 8 to take a line from where it is and put it to the bottom of the screen. Since the line is still marked as a block, you can either leave it at the bottom of the screen—perhaps you are collecting lines in order down there—or look around the screen to see where you want to put the line. Then manually move the cursor to that location and hit ^KV to position the line where you want it.

Sorting, the segregation of material into topical categories, merely requires a jotted scratch list of topic titles with no particular regard for order. Such a scratch list can be quickly made up as follows:

Course through the file and jot down the topic of each note/segment of draft. Do this by making a blank

line with ^N, jotting the topic on the blank line, and using your SFK 7 to grab that one line and send it to the end of the file. Or, if your notes all have topic headings, simply make a quick copy of the heading (mark as a block, ^KC) and send the heading copy down to the end of the file. Then go on browsing your notes.

When you reach the bottom of the file you will find the list of note topics which you sent down one-by-one. Edit the scratch list. You will want to quickly eliminate duplications and group related ideas to reduce the number of headings.

A simple scratch list of topics may be sufficient for the sorting task but if you really want to get fancy you can make a fully structured outline. Use heads and subheads, indenting to indicate parallel and subordinate relations of topic importance and decide now the tentative order of presentation.

If your note file is completely disorganized, as a last resort you can always look at your entire collection of notes by physically printing them to paper, cutting them up and spreading them out around the room. Some writers do like to write with their hands and paper is cheap enough when it assists in organizing thought.

Virtual Split Screen

Although *WordStar* does not yet have split-screen capability, it is a simple matter to have your outline in view while you work through your notes/draft material. Just mark the outline as a block (^KB, ^KK) and send it to its own temporary file (^KW). Then print that file (^KP), tear off your outline and tape it up next to your screen.

At that point you have two things in view at the same time—the file itself on the screen where you can manipulate it and a copy of the relatively static outline on hard print-out.

Whether your outline at this stage is just a scratch topic list or a fully developed outline, now use the outline to guide the actual sorting of notes/text.

Reordering Text

Reordering is strictly defined as mere movement that does not change the internal composition of the text segment moved. All that changes is the segment's location within the overall form. This is no small matter: order of presentation may be just as important as content. Deciding order of presentation is a matter for the critical judgment of the person doing word processing. The computer assists with the mechanics.

The Osborne 1 has extensive facilities for accomplishing this task of sorting out text but the methods are not intuitively obvious and require delving into the deeper levels of *WordStar*. With practice, however, electronic cut and paste does get easier to handle.

Conceptually there are two separate functions to accomplish under reordering: sorting and collation.

To sort notes is to segregate and gather notes into classes by topic or thematic content. Each separate note is classified and related notes are garnered without ordering. Simple sorting is a mundane task you can accomplish even if you have a headache. Also, while sorting you will re-familiarize yourself with the contents of a file. Thus it makes a good warm-up for further editing.

Collation is putting the materials in exact order for final presentation, moving blocks to specific locations. In practice it is often expedient for sorting and collation to merge and overlap, as with all the editing functions. Often we logically blend sorting and collation by classifying according to location. Everyone knows *The Treasure of the Sierra Madre* has a beginning, a middle and an end.

The complexity of your file determines whether reordering will require simple sorting as a separate sub-task. Most of the time, however, sorting can and does take place simultaneously with collation/ordering and indeed, the term sorting is used interchangeably with reordering.

Most sorting involves topically related material within a single file which is, however, scattered widely so that the limited periscope view does not permit single-glance overview. This is the great difficulty. It is troublesome and time-consuming to traverse a file hunting for something you know is in there, but you don't know exactly where. This is where tags, flags, tracers and landmarks prove their value.

Furthermore, haphazardly going after single items means multiple file movements of little result. Organize your search and sort operations to maximize the results of each file traversal.

For an initial sort of notes/draft paragraphs into groupings by topic classification, we need physical places in the file to put material which has been picked out for grouping. For rough sorting, the end of the file is a good place to send selected material. Try the following method:

Run through the file. Quickly tap ^Z. Or use a series of ^C's. Or use ^QF to find ^N ^N (two carriage returns) to jump the cursor to the head of the next note/paragraph and repeat successive jumps by ^L.

On the first run through, when you come to material which you think

“Don't stop the refining process with this first rough grading sort. Each major section may now be re-sorted to a greater degree of fineness.”

should end up in the middle of the file, move it to the end of the file. That's right. Move all notes which belong to the middle of the file to the end. Do this as follows: Rapidly tap your SFK 7 to send stuff down one line at a time.

Caution: if you tap too many lines at once or hold down the key, you will overload *WordStar* with a backlog of line move commands. You will get a warning beep and see some exclamation points on the screen. Slow down or stop until *WordStar* catches up.

At the end of one pass through the file, the file will consist of: (1) Intermingled stuff which belongs at the beginning and the end and (2) All the stuff which belongs in the middle which you have put to the end. Got that?

Again go through the file. This time all notes which should belong to

the end of the file get physically moved to the end. Now the status of the file should be: The beginning notes were left alone and should all be near the beginning. The middle notes were at the end, but moving the end notes down has pushed the middle notes back up to the middle.

Don't stop the refining process with this first rough grading sort. Each major section may now be re-sorted to a greater degree of fineness. Going through just the beginning section of the file, subdivide those notes into three subsections: the beginning of the beginning, the middle of the beginning and the end of the beginning. Several passes through the beginning section will re-locate the beginning section at the end of the file in three ordered sub-sections. Then do the same for your middle section and the end. At some point in refining you will find the file ordered well enough for your continued editing purposes. And the time spent in the simple task of sorting will have refamiliarized you with the contents of the file. You and the computer will both be warmed up for the next set of tasks, which will be covered in part two of this series.

Richard Drakeford is a retired army officer who lives in the San Francisco East Bay area. He has published fiction under other names in men's magazines. After retiring in 1971, he attended the University of California at Berkeley, obtaining a degree in Rhetoric in 1975 and a law degree in 1978.

Interfacing the Texas Instruments Omni 800 series printers

Osborne 1 (DCE)	TI Omni 800 (DTE)
1	1
2	2
3	3
6	6
7	7
8	8
20	11

This is a hardware handshaking cable; pin 11 is an output from the printer used as a terminal ready/busy indication for computer peripheral applications. This line is also known as "reverse channel."

The TI Omni printers require certain configuration codes to make them compatible with the Osborne. The basic setup is as follows:

- 1) Enable full-duplex reverse channel
- 2) 1200 baud
- 3) No parity
- 4) 8 bit data word
- 5) 1 start bit, 1 stop bit

The Osborne is configured under the SETUP program for:

- 1) 1200 baud
- 2) Serial printer (no protocol is specified—the cable handles the handshaking.)

Note: there are a half-dozen printers in the 800 series; not all of them have been tested with the Osborne 1. According to the printer manuals, the above cable should be sufficient to drive any of the TI Omni printers.



only \$29.95

Interactive Graphics and Moving Text

- Super large moving marquee messages
- Full screen editor for both graphics and text
- Store and display files of intermixed messages and graphics
- Interface provided to user written programs for messages.
- Business-Video aid at demonstrations, seminars, and advertising applications
- Education-Help teach spelling, grammar, and sentence structure
- Entertainment-Display files of pictures and messages

only
\$15.95

Alpha Ed

- Help teach anyone the ABC's
- Changeable word definitions
- Graphics make learning fun
- Built-in scoring

Both for only \$35.95

Both programs are 100% menu driven. Knowledge of programming language **NOT** required.

- Osborne 1™ only! Postpaid

Allow 30 days for delivery

ADAM inc.

Osborne 1 is a trademark of the Osborne Computer Corp.

SOFTWARE FOR OSBORNE 1™

SBACOUNT: Accounting for small business. Tracks all income & outgo, prints checks, posts chart of accounts. Prints chart of accounts, trial balance, profit and loss statement, & check ledger. Reconciles and prints reconciliation. Generates an Income & Expense journal for audit purposes. **ONLY \$79.00**

MBACOUNT: Accounting for small business. Full general ledger (20 asset, 20 liability, 20 income, 30 expense & 10 capital accounts all user assigned) PLUS all the features of SBACOUNT as above. **ONLY \$89.00**

PROFBILL: Automatic bookkeeping & invoicing for Doctors, Lawyers and other professional people who invoice at various hourly rates. Will handle up to nine partners/employees. Prints invoice or saves for future billing. **ONLY \$89.00**

MAILLIST: Mailing list, customer handling, filing program, ten data fields per customer. 8 character cust # - user (or dated program) assigned, sorts by most fields. Add, delete or modify any record. Prints all or part on 1, 2 or 3-up labels on 80 column printer. **ONLY \$89.00**

\$FINANCE: Personal financial program. Prints checks, posts amount to selected budget category, posts debits and deposits, prints check ledger, reconciles and prints reconciliation statement. Similiar program for charge cards. Extracts and prints list of expenditures in selected budget categories. **ONLY \$79.00**

TOUCHTYP: Touch typing course, Beginning, Intermediate & Advanced. Tests and displays typos and displays final score. **ONLY \$79.00**

STANFORM: Need to fill out standard or non-standard forms? This program generates programs for printing data in the proper location on invoices, gov't forms, insurance claims, any form that will fit into your printer. **ONLY \$79.00**

MSBCHART: Prints MICROSOFT BASIC programs, prints cross reference list of all referenced lines, prints list of variables cross referenced to each line where used. A godsend if you modify or debug Mbasic programs. **ONLY \$79.00**

Price includes disc, manual, and shipment next working day by first class mail. Mail in your order today or request detailed program listing. Better yet, if using accepted credit card, phone your order or data request to our 7 day, 24 hour phone service. Californians must add 6% to all prices.

MAP

(Visa, Mastercharge & American Express cards accepted)

(Micro-Art Programmers) Innovative Man/Machine Interface
173 Birch Avenue Cayucos, California 93430 Phone: (805) 995-2329

OSBORNE 1™ is a trademark of OSBORNE COMPUTER CORP.
MBASIC® is a registered trademark of MICROSOFT



Graphics screenwriting

*A program to draw
and store screen graphics*

Jack Walraven

Designing a good-looking screen in *MBASIC* is not easy, especially when incorporating block graphics. This program enables you to draw text and graphics on the screen using the arrow keys. When the design is complete, press the [RETURN] or [ENTER] key and the program generates an *MBASIC* routine automatically writing the READ, POKE, and required DATA statements. The savings in labor and time are tremendous.

Based on a similar program for the TRS80 that creates a series of PRINT TAB statements, this program uses the POKE statement to display the block graphics on the screen. The program sets the screen window parameters from video memory location 61440 (decimal) to 64383, to prevent wandering past Osborne's 128 × 32 screen window.

Drawing the Screen

The arrow keys are used to point and move the screen cursor in the desired direction. Graphics are generated by pressing the [ESC] key to rotate through the various graphics characters; press the [TAB] key to retain the one you like on the screen. Keep it depressed to print it in the direction of the screen "arrow" cursor. Note that the cursor may also be used to delete characters.

Program Concepts

You may wonder how your screen design program is generated and saved. When the design is finished, pressing the [RETURN] key PEEKs video memory by noting the location and the ASCII code of that character. A "dim block" character is traced over each screen graphic symbol or character and the information is stored in a DATA statement. The actual video memory location is not saved as it would take up too much diskette space. Instead, it records the increments between memory locations for higher efficiency. When the routine has been written, it is saved as an ASCII formatted sequential access file, with the necessary commands required to recall your screen graphics display. The program can be run by itself or merged into another program; however, make sure the line numbers are different as the merged file lines will replace the corresponding lines in memory. Use RENUM if necessary.

Editor's note—In order to write the sequential file to the B drive, change line #530 to:

F\$ = "B:" + F\$ + ".BAS"

The command to merge a file is simply:

MERGE "FILENAME"

or MERGE "B:FILENAME" if it's located on the B drive. Only files saved in ASCII format (like this program) may be merged.

Jack Walraven is the President of the Vancouver Island Osborne Group in Victoria, Canada.

```
100 '*** SCREENWRITER PROGRAM WITH GRAPHICS FOR THE OSBORNE 1
110 '***
120 '***          written by Jack Walraven (Oct 82)
130 '***
140 '*** 2840 Leigh Rd, Victoria, B.C., Canada
150 '***
```

```
160 PRINT CHR$(26)
170 CLEAR
180 DIM PR$(100)
190 B=61440:I=64383:
200 Z=B
210 C=83
220 RM=999:LM=999
230 SP=32
240 PRINT CHR$(26)
250 PRINT:PRINT
260 PRINT"CURSOR CONTROL AND ALPHA-NUMERICS
270 PRINT"Use the arrow keys to move the cursor to the
280 PRINT"desired position. The cursor will show what
290 PRINT"direction it will move. Use the alpha-numeric
300 PRINT"keys to lay out the screen format and message.
310 PRINT
320 PRINT"GRAPHICS! Use the ESC key to produce the graphic
330 PRINT"you desire. Use the TAB key to continue drawing
340 PRINT"that graphic in the direction you indicated with
350 PRINT"the arrow keys.
360 PRINT"When your design is completed, hit the ENTER
370 PRINT"key. The program will then read (PEEK) your
380 PRINT"design in video memory, write a BASIC program
390 PRINT"and save it in a sequential file, which you
400 PRINT"can then MERGE with any of your programs (just
410 PRINT"make sure that the line numbers don't overlap).
420 PRINT:PRINT:PRINT"press any key to begin
430 Y%=INPUT$(1)
440 PRINT CHR$(26)
450 INPUT "ENTER THE BEGINNING LINE NUMBER (default is 1): ";LN
460 PRINT CHR$(26)
470 IF LN=0 THEN LN=1
480 INPUT "INCREMENT BETWEEN LINE NUMBERS (default is 1): ";IC
490 PRINT CHR$(26)
500 IF IC=0 THEN IC=1
510 INPUT "FILE NAME without .ext (default is TEST): ";F$
520 IF F$="" THEN F$="TEST"
530 F$=F$+".BAS"
540 PRINT CHR$(26)
550 '*****remove cursor from screen
560 POKE Z+128,SP
570 POKE Z,C
580 '*****wait for keyboard input
590 A%=INKEY$:IF A$="" THEN 590
600 '*****check if input is arrow key
```



```

610 IF A%=CHR$(13) THEN POKE Z,SP:GOTO 1160
620 IF A%=CHR$(11) THEN C=94:GOTO 800
630 IF A%=CHR$(10) THEN C=118:GOTO 880
640 IF A%=CHR$(12) THEN C=62:GOTO 960
650 IF A%=CHR$(8) THEN C=60:GOTO 1060
660 A=ASC(A%)
670 IF X>31 THEN X=0
680 '*****check if input is graphic
690 IF A=27 THEN A=X:X1=X:X=X+1:POKE Z,A:GOTO 590
700 IF A=9 THEN A=X1
710 Z1=Z-61440!:IF C=62 AND (Z1-50)/128=INT((Z1-50)/128) THEN
POKE Z,A:GOTO 590
720 IF C=60 AND Z1/128=INT(Z1/128) THEN POKE Z,A:GOTO 590
730 POKE Z,A
740 IF C=94 AND Z-127>B THEN Z=Z-128:GOTO 590
750 IF C=118 AND Z+128<E THEN Z=Z+128:GOTO 590
760 IF C=62 AND Z+1<E THEN Z=Z+1:GOTO 590
770 IF C=60 AND Z>B THEN Z=Z-1:GOTO 590
780 GOTO 590
790 '*****cursor up routine
800 IF Z-128<B THEN 590
810 IF C1<>C THEN 840
820 POKE Z,SP
830 Z=Z-128
840 C1=C
850 POKE Z,C
860 GOTO 590
870 '*****cursor down routine
880 IF Z+128>E GOTO 590
890 IF C1<>C THEN 920
900 POKE Z,SP
910 Z=Z+128
920 C1=C
930 POKE Z,C
940 GOTO 590
950 '*****cursor right routine
960 IF Z+1>E THEN 590
970 IF C1<>C THEN 1010
980 Z1=Z-61440!:IF Z1=RM THEN 590
990 POKE Z,SP
1000 Z=Z+1
1010 C1=C
1020 Z1=Z-61440!:IF (Z1-50)/128=INT((Z1-50)/128) THEN RM=Z1
1030 POKE Z,C
1040 GOTO 590

```

```

1050 '*****cursor left routine
1060 IF Z-1<B THEN 590
1070 IF C1<>C THEN 1110
1080 Z1=Z-61440!:IF Z1=LM THEN 590
1090 POKE Z,SP
1100 Z=Z-1
1110 C1=C
1120 Z1=Z-61440!:IF Z1/128=INT(Z1/128) THEN LM=Z1
1130 POKE Z,C
1140 GOTO 590
1150 '*****read (peek) screen and write BASIC program
1160 CU=1
1170 PR$(CU)=STR$(LN)+" PRINT CHR$(26)":CU=CU+1:LN=LN+IC
1180 PR$(CU)=STR$(LN)+" WHILE A<>32:Z1=Z:READ Z,A:Z=Z1+Z:
POKE Z+61440!,A:WEND
1190 CU=CU+1:LN=LN+IC
1200 N2=0
1210 FOR N=0 TO 2816 STEP 128
1220   FOR N1=N TO N+50
1230     Z=N1+61440!
1240     T%=PEEK(Z)
1250     IF T%=32 THEN 1330
1260     POKE N1+61440!,127
1270     Z%=N1-N2
1280     Z%=MID$(STR$(Z%),2):T%=MID$(STR$(T%),2)
1290     IF LEN(PR$)<50 THEN PR$=PR$+Z%+", "+T%+", ":
GOTO 1320
1300     PR$(CU)=STR$(LN)+" DATA "+PR$+Z%+", "+T%
1310     CU=CU+1:LN=LN+IC:PR$=""
1320     N2=N1
1330   NEXT N1
1340 NEXT N
1350 IF PR$="" THEN 1370
1360 PR$(CU)=STR$(LN)+" DATA "+PR$+"32,32"
1370 CU=CU+1:LN=LN+IC
1380 PR$(CU)=STR$(LN)+" Y%=INPUT$(1)
1390 '*****save file to disk
1400 OPEN "O",#1,F%
1410 FOR N=1 TO CU+1
1420   PRINT #1,PR$(N)
1430 NEXT N
1440 CLOSE #1
1450 PRINT CHR$(26)
1460 PRINT:PRINT "YOUR DESIGN: ";F%"; HAS BEEN SAVED TO DISK.
1470 END

```




ACCOUNTING

A professional-quality system at a reasonable price.

Don't let the low price fool you. Desktop Accountant™ is not a "cheap" accounting system, only inexpensive. That's because original development costs were recovered years ago allowing us to sell an excellent product in high volume at low prices and still earn a fair profit. This time-tested, reliable software was designed and written in 1975 for small-to-medium sized businesses. Since then it has successfully proven itself in well over 5,000 companies in all 50 states and in 13 foreign countries. It is also used by hundreds of attorneys, bookkeepers, accountants and CPA's, including the regional offices of several famous "Big Eight" accounting firms! Order yours today with complete confidence.



Desktop Accountant™

Complete Package of Software, Training Aids, Manuals, and Users' Newsletters:
ONLY \$395

FULL-FEATURE, FULLY-INTEGRATED ACCOUNTING SYSTEM

Your Bookkeeper, Accountant, and Banker will love you for installing this great system!

- For portable, personal, & office micros
- Each module may be run "stand-alone" or fully-integrated to post automatically to General Ledger
- Flexible Chart of Accounts
- Friendly and fully menu-driven
- System-prompted data entry
- On-line data file updating
- Complete, detailed audit trails
- Instant access to all information
- Produces 42 reports & documents
- Prior Year Comparisons
- Income Statements for up to 99 Depts.
- Comprehensive customer & vendor files
- Automatic periodic billing option
- Automatic end-of-month file backup
- Automatic and manual check writing
- Maintains open item A/R & A/P
- Detailed A/R & A/P Aging Reports
- Produces Cash Requirements Report ...an excellent cash management tool!
- 50 State and 20 local Tax Tables
- Popular year-to-date paycheck stubs
- Includes 50,000+ lines of Source Code
- Compatible with floppy & hard disk
- A truly professional system!

You Can Also Order The Outstanding Trantor Hard Disk System

For greater speed and vastly increased capacity, upgrade your system with the high-performance Trantor hard disk unit. You get 3 to 5 times increased speed and 50 to 150 times increased storage capacity. And your single, centralized hard disk replaces up to 150 loose floppies. It arrives ready-to-use after a simple 5 minute installation procedure. Available in 5, 10, and 15 megabyte capacities, Trantor hard disk systems consistently win exceptionally high reviewers' ratings. Order a Trantor hard disk system and turn your portable computer into a powerful office work station. **PRICES:** Five megabyte \$2,495; Ten megabyte \$3,095; Fifteen megabyte \$3,595. **SPECIAL SAVINGS OFFER:** Buy any Trantor hard disk unit and we'll include our complete Desktop Accountant™ System, **PLUS** our Desktop Inventory Manager™, both for only \$150! You save \$540.00!

FEATURE COMPARISON CHART

VENDOR:	Rocky Mountain Software Systems	Peachtree	TCS	Businessmaster, Inc.	RSN Enterprises
TRADE NAME:	Desktop Accountant	Series 4	Big Four	Businessmaster Plus	Osborne/McGraw-Hill Basic Accounting
Price	\$395	\$595 to \$1,800 Depends on Dealer	\$200 to \$1,200 Depends on Dealer	\$289	\$416
Includes Payroll	YES	NO	YES	YES	YES
Fully-Integrated	YES	YES	YES	YES	NO
Ready-to-Run	YES	YES	YES	YES	YES
Audio Cassette Tape Start-up & Training Aid	YES	NO	NO	NO	NO
System "Road Map" Guide	YES	NO	NO	NO	NO
Free Users' Newsletter	YES	NO	NO	NO	NO
Source Code Included At No Extra Charge	YES	NO	YES	NO	NO
Telephone "Hot Line" Support Service	YES	YES	Depends upon local dealer	YES	Depends upon local dealer
Sample Data Files for Practice & Training	YES	YES	YES	YES	NO

Our Desktop Inventory Manager™

Our excellent stand-alone Inventory Management System is probably the most comprehensive available in the micro market today for retail and wholesale businesses.

- Records current inventory levels on an item-by-item basis.
- Multi-location/multi-department applications.
- Quantity capacity to 999,999,999,999.
- Inquiry function uses partial item keys.
- All reports printed by department, location, or vendor and can include entire data file or any subset.
- Produces 11 management information reports.
- Tracks sales, receipts, returns and reserves.
- Stores and sells fractional units.
- User-defined history records.
- Item keys can be any printable character.
- Complete audit trail. **PRICE:** \$295, includes full support and 220 pg. manual. Not available for single density systems.

SOFTWARE

for the **OSBORNE I™** COMPUTER

Desktop **Accountant™** INTERACTIVE ACCOUNTING AND FINANCIAL REPORTING SYSTEM

A COMPLETE SYSTEM!

includes all four standard general accounting modules:

- **General Ledger**
 - **Accounts Receivable**
 - **Payroll** with check writing
 - **Accounts Payable**
- Everything you need to keep the books...at a price you can afford!
 - Performs all the essential functions your business needs to operate according to sound financial accounting practices
 - Eliminates time-consuming bookkeeping chores and tedious paperwork
 - Improves productivity and puts you in better control of your business
 - Gives you a "Big Company" image with printed invoices, statements, checks
 - Handles even the most demanding applications with speed and accuracy
 - High-performance at low cost. Absolutely the BEST Value on the market!

Here's what you get:

1. A Professional-quality, full-feature, fully-integrated Accounting System.
2. Six 5¼" Double Density diskettes, or fourteen Single Density diskettes.
3. Four easy-to-follow, self-teaching User's Manuals (over 540 pages!).
4. A helpful, new audio cassette tape with clear, step-by-step instructions for faster, easier installation, start-up, and training. An exclusive feature!
5. "Read Me First" a unique 40-page system guide and start-up aid.
6. Complete sample data and sample reports for practice and training.
7. Free 1-year subscription to "Debits and Credits" Users' Newsletter.
8. Two 3-ring binders for User's Manuals and User's Newsletters.
9. Complete source code so you can easily customize any program.
10. Telephone "Hot Line" service for helpful Installation Support, Start-up Support, Technical Support, and Training Support. No extra charge.

COMPLETE PACKAGE ONLY \$395.

In stock...Ready to ship

Available for Portable, Personal and Desktop microcomputers including these popular formats

- | | |
|---|---|
| <input type="checkbox"/> All 8" CP/M® computers, single density | <input type="checkbox"/> Osborne I single density |
| <input type="checkbox"/> Northstar Advantage | <input type="checkbox"/> Osborne I double density |
| <input type="checkbox"/> Northstar double density | <input type="checkbox"/> Kaypro II double density |
| <input type="checkbox"/> Northstar quad density | <input type="checkbox"/> IBM PC & Compatibles |
| <input type="checkbox"/> Morrow Designs' Micro Decision | <input type="checkbox"/> Call about other formats |

Not sold in stores • Order Direct by Mail or Phone
FREE Information Pack showing printed reports, etc.

ORDERS and INQUIRIES CALL (415) 680-8378



ROCKY MOUNTAIN SOFTWARE SYSTEMS
Business Microcomputers and Software

Send Orders to: 1280-C Newell Avenue, Suite 147-A • Walnut Creek, California 94596
VISA • MasterCard • COD • California residents add 6½% State sales tax
Orders shipped within 24 Hrs. via UPS • Add \$5.00 for faster 2 Day Rush Air Service

GENERAL LEDGER

- Automates bookkeeping and financial reporting process
- Produces up-to-the-minute income statements and balance sheets
- Includes prior year comparisons
- Flexible chart of accounts
- Detailed audit trail
- Trial balance includes all transactions
- Income statements for up to 99 Departments
- Instant on-line access to all information
- Reduces effort and errors

ACCOUNTS RECEIVABLE

- Helps control cash flow!
- Produces timely invoices and statements
- Maintains comprehensive customer data files
- Customer activity available instantly on screen or printer
- Summary and detailed aging reports
- Helps speed collections, make financial decisions, and monitor sales performance
- Detailed audit trail
- Includes automatic periodic customer/client billing option—ideal for service businesses
- Open item or balance forward

ACCOUNTS PAYABLE

- Greatly improves cash management
- Maintains complete vendor/voucher history
- Tracks current and aged payables
- Produces aged payable reports on command
- Automatic pay selection program allows payment by due date or discount date
- Accommodates both manual and automatic check writing
- Includes check register
- Uses commercially available forms
- Detailed audit trail
- An excellent cash management tool. The savings realized from improved cash control can pay for your Desktop Accountant™ within one year

PAYROLL

- Be the office hero each week when the checks come out on time!
- Stores data for all hourly, salaried, and commissioned employees
- Prints payroll checks with an absolute minimum of input
- Maintains monthly, quarterly, and yearly totals for reporting purposes
- Multiple states(!)
- User-modifiable tax tables(!)
- Prints W-2s
- Prepares 941 reports
- Uses commercially available forms
- Offers popular, comprehensive employees' check stub
- Stores and reports employee personnel and payroll information

PRODUCES 42 FINANCIAL REPORTS and DOCUMENTS: (Displayed on Screen or Printed on Paper)

General Ledger

- | | |
|--|---|
| 1. Chart of Accounts | 8. Income Statement |
| 2. Chart of Accounts with summary dollar amounts | 9. Income Statement with prior year comparison |
| 3. Chart of Accounts with prior year comparisons | 10. Departmental Income Statement(s) |
| 4. Daily Transactions Report | 11. Departmental Income Statement(s) with prior year comparison |
| 5. Itemized Monthly Transactions | 12. Detail report for individual accounts |
| 6. Balance Sheet | 13. Trial Balance Statement |
| 7. Balance Sheet with prior year comparison | |

Accounts Receivable

- | | |
|---|-----------------------------------|
| 1. Daily Transactions Report | 4. Summary Aging Report |
| 2. Invoices (with or without pre-printed forms) | 5. Detailed Aging Report |
| 3. Statements (with or without pre-printed forms) | 6. Itemized Monthly Transactions |
| | 7. Detailed Cust. Activity Report |
| | 8. Summary Cust. Account Report |

Accounts Payable

- | | |
|-----------------------------------|-------------------------------------|
| 1. Daily Voucher Report | 7. Transaction Register |
| 2. Daily Credit Report | 8. Open Voucher Report |
| 3. Checks with Detailed stubs | 9. Aged Payables Report |
| 4. Check Register | 10. Detailed Vendor Activity Report |
| 5. General Ledger Transfer Report | 11. Summary Vendor Account Report |
| 6. Cash Requirements Report | |

Payroll

- | | |
|------------------------------|-----------------------------------|
| 1. Federal Tax Tables | 6. Quarterly Payroll Summary |
| 2. State Tax Tables | 7. Gen'l. Ledger Transfer Report |
| 3. Payroll checks with stubs | 8. Detailed Employee File Listing |
| 4. Payroll Check Register | 9. 941 Worksheet |
| 5. Monthly Payroll Summary | 10. W-2 Forms Printing |

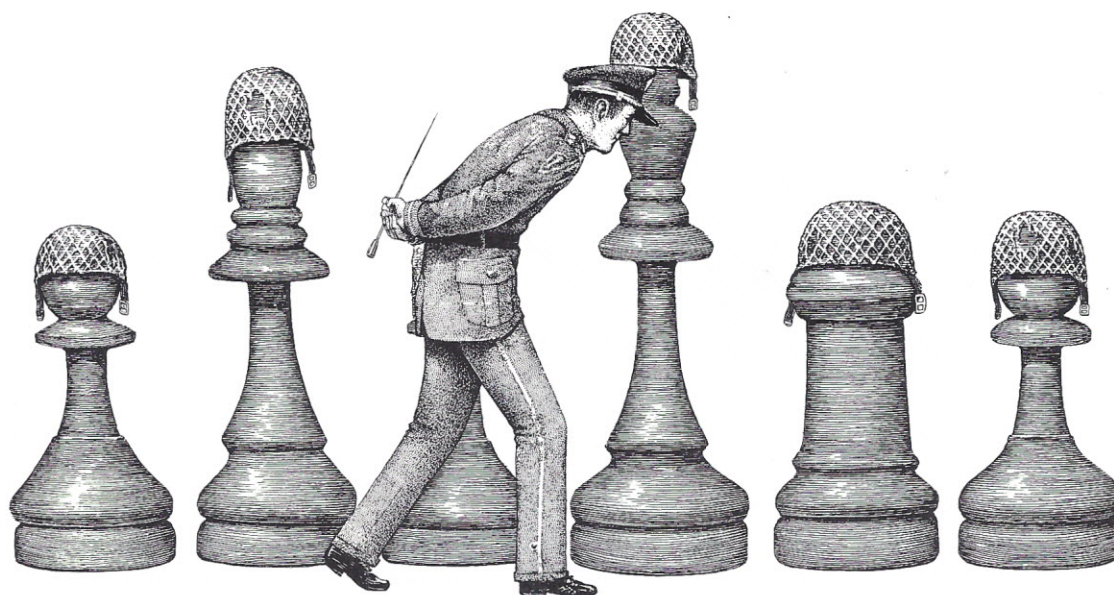
SYSTEM CAPACITIES

Module	SD	DD	5Mb	10Mb	15Mb
General Ledger					
Accounts	100	200	400	400	400
Transactions	500	1,000	6,000	12,000	18,000
Accounts Receivable					
Customers	200	400	400	400	400
Transactions	400	800	6,000	12,000	18,000
Accounts Payable					
Vendors	200	400	400	400	400
Transactions	400	800	6,000	12,000	18,000
Payroll					
Employees	200	400	400	400	400

SYSTEM REQUIREMENTS

Requires either CP/M® or MS-DOS (PC-DOS); MBASIC for CP/M®, BASICA for MS-DOS; 56K to 64K RAM; 2 Disk Drives or Hard Disk; at least 200K of Mass Storage (we recommend more); 132 column printer (an Epson MX-80 or similar printer with compressed mode is acceptable); call for exact requirements on specific systems.

CP/M is a registered trademark of Digital Research Corp.
Osborne I is a trademark of Osborne Computer Corp.
IBM is a trademark of International Business Machines.
Desktop Accountant is a trademark of Rocky Mountain Software Systems.
©1982, 1983 Rocky Mountain Software Systems • DA-111(A) OSB



C·O·N·F·E·S·S I·O·N·S

OF AN ARMCHAIR GENERAL

Osborne 1 thrives at chess tournament

Mike Sanchez

War is not hell when played on a gameboard.

It becomes a fantasy of historical symbolism and vicarious thrills when your opponent is conquered by pure strategy and calm tactics. You suffer the slings and arrows of only a mild headache when you become the vanquished.

The original "army game" is chess, which was invented in India, refined in Persia, popularized in Europe, and discovered by me in Los Angeles at the age of 13. I joined the chess club and quit after one meeting when I was slaughtered by freshman nerds who were light years smarter than I. I decided chess was not cool.

Later in college a girl queried romantically as we sipped wine in front of the fire, if I played chess. I realized then that not only was chess *cool*, it was sophisticated and most important of all, manly.

So when I was invited to the North American Computer Chess Championships in Dallas this past autumn, I discovered the thrill of two computers waging a man's war.

The tournament was sponsored by the Association for Computer Machinery, for the thirteenth consecutive year. This was to be a major computer chess event starring the world's deadliest chess software. Battle lines were drawn between armies

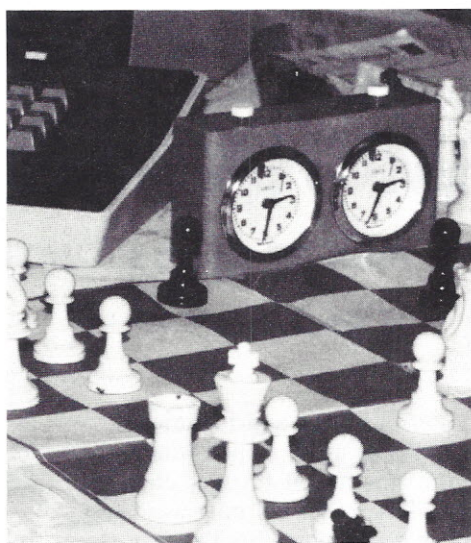
as I joined David Levy and "Philidor" facing the forces of Tony Scherzer's "Bebe."

David Levy of Intelligent Software is considered one of the leading authorities on computer chess. He designs chess programs for his own Osborne 1 computer. David verified that the Osborne 1 is quite capable of handling state-of-the-art chess programs and its portability is ideal for the international tournaments he travels to.

Mike Valvo, Tournament Director, International Master, and one of the best blindfold chess players in the world set the tournament in motion. He called the charge as the pawns



The David Levy/Osborne command headquarters reconnoiters the battle field with Tony Sherzer's "Bebe".



slowly advanced throughout the room.

All around me, on overhead projected screens, I witnessed slow death and destruction and heard the cold hum of computers searching deep within their memories for the cleanest killing blow.

Philidor displayed level after level of possible moves against its enemy, the Bebe Chess Engine, on the Osborne CRT. Bebe countered with

the war cries of assembly language.

Before my eyes came the crushing blows and bloody throes of queens exchanged. Now it would be only a matter of time until Philidor or Bebe wore down its enemy. Speed was the key. Could the Osborne and Philidor think faster than the Chess Engine? This would determine how many legal moves could be viewed in nodes per second, how quickly Philidor could place its men in response to

Bebe's cunning strategy.

The silence of the battlefield was shattered periodically by the "beep" of the machines, indicating when a move had been chosen. Toggle flags rose and fell as the fortunes of war do, showing whose turn it was on the CRT displays. On the smoke-washed board pawns fell, rooks and bishops swept their field and knights leapt valiantly.

Meanwhile, the human observers chatted amiably trying to second-guess the computers, as the Gods of Olympus might watch the pitiable players on Earth below.

After three hours, chessmen were strewn about the sides of the board like so many spent shells. The pathetic remnants of once proud armies were extended in patterns like strings about to break. Osborne/Philidor, searching through 350 to 450 moves per second, was suffering, reeling under the pressure of Chess Engine/Bebe's 20,000 choices per second.

The dreaded horizon effect was evident again in Texas, as the Osborne and Philidor sent man after man to the edge in an Alamo-like last stand.

Finally, it ended. Quietly. No cries, no weeping. Only the sound of the time clock ticking the last minute.

As with all good war games, you want to play again. In the last battle I observed, Osborne/Philidor was the decisive victor against a kamikaze game waged by an Apollo computer that spoke Fortran. The game lasted barely one hour.

War is filled with irony. Philidor's victim was named Chaturanga, the original Sanskrit word for "the army game," chess.

Mike Sanchez is a writer with OCC's Marketing Communications department.

TECHNICAL TIPS

Programming the function keys using DDT

Don Ross
Gary Cuevas

With DDT, the Osborne 1 function keys can be programmed with hex values that are not normally accessible from the keyboard. First, determine which BIOS version you have using the following procedure:

1. Boot your system using the CP/M Utility Diskette.
2. Type DDT and press RETURN.
3. When the DDT program responds with its prompt (-), type D0000 and press RETURN.
4. You should now see one of the following sets of numbers:
0000 C3 03 E5 etc....
0008
OR
0000 C3 03 E1 etc....
0008
5. Notice the hex code at location 0002. If the code is E5, you have BIOS version 1.3. If the code is E1, you have BIOS version 1.4.
6. Type ^C to exit the DDT program.

Once you have determined which BIOS you have, use the SYSGEN program to put CP/M system tracks on a blank formatted diskette. Use the SETUP program to verify that NONE of the function keys are currently programmed for anything other than the digits 0 thru 9. If the keys are programmed, change them to the digits 0 thru 9.

The procedure for changing the function keys with DDT is identical for 1.3 or 1.4 BIOS, but the hex locations are slightly different. The following is a description of how to program function key #0 with just one hex code. Start by booting the CP/M Utility diskette in Drive

A. Place your blank formatted diskette with system tracks in Drive B. Enter the following commands shown boldfaced and underlined, followed by pressing the RETURN key:

For BIOS VERSION 1.3-

```
A>MOVCPM 60 *
CONSTRUCTING 60K CP/M VERS 2.2
READY FOR "SYSGEN" OR
"SAVE 39 CPM60.COM"
A>SAVE 39 B:CPM60.COM
A>DDT B:CPM60.COM
DDT VERS 2.2
NEXT PC
2800 100
-S2012
2012 30 XX ← XX is the hex code of your
choice.
2013 31 _
- ^C
A>SYSGEN
```

OPERATING SYSTEM GENERATION PROGRAM OSBORNE REVISION 1.5

SOURCE DRIVE (A or B) <CR> (This reads the system from memory)

DESTINATION DRIVE (A or B) **B**

DESTINATION DRIVE (A or B) <CR> (This exits the SYSGEN program)

Function key #0 is now programmed with your custom value.

For BIOS version 1.4, use the same procedure, but substitute the following instructions:

1. For the first command, use **MOVCPM 59 ***
2. For the second command, use **SAVE 39 B: CPM59.COM**
3. For the third command, use **DDT B:CPM59.COM**
4. And the last command is **S2025**

All other instructions are identical from this point on. You may now use the customized diskette as a source disk when using the SYSGEN program.

(Don Ross is a Systems Support Specialist for Osborne Computer Corporation. Gary Cuevas, a frequent contributor to The Portable Companion, is a Software Support Specialist at Osborne.)

Setting Up SuperCalc

Brad Baldwin

For many people, *SuperCalc's* output "setup" option has never been adequately explained—or understood. It's not the changing "page length" or "page width" commands that are so confusing; the frustration lies within the "manual setup codes." With manual setup one can easily access compressed, boldfaced, or italic print (if your printer has those features) prior to printing a *SuperCalc* spreadsheet. This feature is different from that of changing the printer initialization string using *SuperCalc's* INSTALLS program. INSTALLS requires exiting from *SuperCalc* to the CP/M system and patching in the requisite codes; any changes are written to the diskette. With manual setup, the printer string is modified at whim *without* exiting from the spreadsheet. The codes do not write to the disk, but merely initialize the printer's ROM. Once a control code is sent to the printer, the *SuperCalc* files will continue to print in that initialized mode until the printer is turned off or new setup codes are keyboarded.

Naturally, the "Disk" option could be used to print the spreadsheet to diskette as a file readable by *WordStar* and then exit to *WordStar* to insert print control codes (^PB, ^PD, USR1:, USR2: patches, etc).

Two methods can be used to alter the printer setup codes from a *SuperCalc* spreadsheet. The first one involves entering the appropriate escape, control, and symbol codes for your printer's functions. The second approach uses Don Ross and Gary Cuevas' "Programming the Function Keys Using DDT" tip and is the method I recommend; however, both will be explained.

After entering *SuperCalc's* output setup option, the screen will prompt with:

Enter Code (<CR> when done): —

Keyboarded characters are not echoed to the screen but they are accepted and registered in memory. *SuperCalc* also ignores hex codes.

Method #1

Instead of hex codes, use:

- ASCII control codes A through Z
- Escape + symbol codes

Selected examples (see your printer manual):

CTRL O	Epson: compressed print mode
ESC Ø ESC E	Epson: 1/8" line spacing, emphasized
CTRL L	Okidata: feeds paper Top of Form
ESC 8	Okidata: 1/8" line spacing
ESC Q	Nec 8023: compressed

Some codes cannot be accessed using this method. The Okidata uses 1D hex to get compressed print, but there is no equivalent escape or control code.

Method #2

By programming function keys using DDT, all printer control codes can be set.

Function Key	Address 1.3	1.4	Epson Hex Codes	Function
^0	2012	2025	1B	escape code
^1	2013	2026	0F	compressed print on
^2	2014	2027	12	compressed print off
^3	2015	2028	30	* 1/8" line spacing
^4	2016	2029	32	* default 1/6" spacing
^5	2017	202A	45	* emphasized on
^6	2018	202B	46	* emphasized off
^7	2019	202C	47	* double strike on
^8	201A	202D	48	* double strike off
^9	201B	202E	40	* reset all modes

* precede with an escape code (1B)

Table 1

Table 1 shows hex codes, suggested patch locations, and the resulting function for the Epson MX-80 Grafrax printer; although any printer can implement this concept. The 1.3 and 1.4 numbers refer to the BIOS version.

Examples

If I want a *SuperCalc* spreadsheet printed with emphasized and double strike, the following sequence is typed in (spaces are for clarity only):

Enter Codes (CR when done): ^0 ^5 ^0 ^7

(Remember, none of the characters will be echoed on the screen.) Immediately afterward, if I need a print-out of another spreadsheet (or the same one) in compressed print and 1/8" line spacing, this sequence is used:

Enter Codes (CR when done): ^0 ^9 ^2 ^0 ^3

And for one more file, I want double strike, normal print, normal line spacing:

Enter Codes (CR when done): ^0 ^9 ^0 ^7

All subsequent files will print double strike, unless new codes are entered or the printer is turned off. It is not necessary to always use the "reset all special modes" code. Each individual "off" code could be typed in.

Indexing files with Wordstar

John Wiseman

As I stared at my file directory (already several weeks old) I realized I had no idea what files I had created under all those directory labels. Over a period of a few months I created several hundred files, including mailing lists, memos, and letters. A system was needed to maintain a file index.

Software has been developed to help solve this problem, however, being a "do it yourself" type, I decided to see if *WordStar* could handle the job. Here's an easy method to create and maintain a true index of file directory names.

Open a document file using, for example, the filename TEST. Type a ^KB, the filename, a concise description of the file, and a ^KK to close off the block. It will look something like this:

(^KB)TEST : this sentence describes the contents of the TEST file.

(^KK)

Enter a ^KW to write the file to the diskette choosing the name INDXFILE (or whatever suits you). After it has been written, delete the marked block (^KY) and continue on with your document.

By now you should be able to see the general strategy: Every time a new file is created, use the ^KR command to read in the INDXFILE in order to provide an update. Write the INDXFILE back out to the diskette (^KW) answering "Yes" to the overwrite prompt question.

Note that the index could also be updated at the end of the text instead of the beginning.

Whenever you forget what's on the diskette, print out the index file and keep the printed copy with the diskette for future reference. Of course, you can always view the index file by calling it up with an edit or the ^KR command while in another file.

SUBMIT.COM Patch

As discussed in the *Wizard of Osborne* column, SUBMIT needs a patch in order to write the \$\$\$SUB file to the A drive. With this simple modification, SUBMIT may be executed on any drive instead of just the A drive.

Type the boldfaced and underlined commands shown below. (Back-up your SUBMIT.COM file before proceeding.)

```
A>DDT SUBMIT.COM
DDT VERS 2.2
NEXT PC
0600 0100
-S05BB
05BB 00 01
05BC 24
- ^C
A>SAVE 5 SUBMIT.COM
```

To verify that the patch is operational, run SUBMIT from the B drive and watch how the \$\$\$SUB file is executed from the A drive after the automatic warm boot.

Okidata **MICROLINE 92**

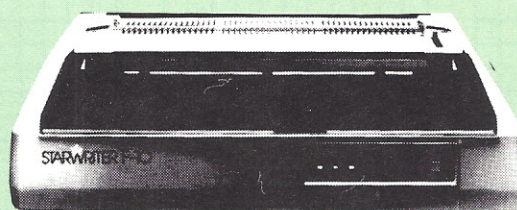


\$524.88 UPS DELIVERED

- 160 characters per second, bi-directional, logic-seeking printhead action with 80 & 40 cps hi-res correspondence print modes
- 9 x 9 matrix produces correspondence, 10, & 17 cpi with true descenders; double width & download option for character sets standard
- Subscripts, superscripts, underlining, backspace, & forms control
- Friction & pin feed paper handling takes up to 3-part forms (8.5")
- Centronics parallel or RS-232C interfacing (specify)

Microline 93 (136 columns).....\$884.88

C. Itoh **F-10 Starwriter**



\$1379.88 UPS DELIVERED

- 40 characters per second, bi-directional, logic-seeking printhead action
- 136 column, friction fed, takes 15" paper & 3-part forms
- 96 character set, fully-formed letters on Diablo-compatible daisywheels for optimum print quality
- Subscripts, superscripts, underlining, backspace, & forms control
- Centronics parallel or RS-232C interfacing (specify)

F-10 Printmaster (55 cps).....\$1679.88
F-10 Tractor (Starwriter/Printmaster).....\$289.88

PRINTERS

Anadex

Anadex WP-6000A (P&S).....**\$3069.88**
 Anadex DP-9501A (P&S).....**\$1409.88**
 Anadex DP-9620A (P&S).....**\$1499.88**

Centronics

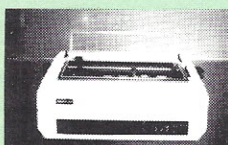
Centronics 122 (P).....**\$829.88**
 Centronics 122 (R).....**\$949.88**
 Centronics 352 (P&S).....**\$1554.88**
 Centronics 353 (P&S).....**\$2329.88**

C. Itoh



C. Itoh Prowriter.....**\$399.88**
 w/RS-232C.....**\$609.88**
 C. Itoh Prowriter 2.....**\$734.88**
 w/RS-232C.....**\$789.88**

Daisywriter



Daisywriter 2000 48K buffer (P&S)
 sold only w/cable.....**\$1139.88**
 Tractor.....**\$149.88**
 Sheetfeeder.....**\$739.88**

Diablo

Diablo 620 (S).....**\$1029.88**
 Diablo 630 (S).....**\$1969.88**
 Diablo 630 KSR (S).....**\$2694.88**
 630/630KSR Tractor.....**\$289.88**

Star Micronics



Gemini 10 (P).....**\$399.88**
 Gemini 10 (P&S).....**\$479.88**
 Gemini 15 (P).....**\$499.88**
 Gemini 15 (P&S).....**\$579.88**

PRINTERS

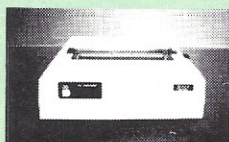
IDS



IDS Prism 80 (P&S).....**\$1104.88**
 above w/graphics.....**\$1189.88**
 above w/sheetfeed.....**\$1294.88**
 above w/4-color.....**\$1539.88**
 IDS Prism 132 (P&S).....**\$1269.88**
 above w/graphics.....**\$1339.88**
 above w/sheetfeed.....**\$1459.88**
 above w/4-color.....**\$1699.88**
 IDS Microprism (P&S).....**\$579.88**

Okidata

Microline 80 (P).....**\$339.88**
 Microline 82A (P&S).....**\$419.88**

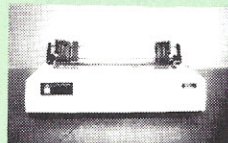


82A Okigraph ROM.....**\$49.88**
 80/82A Tractor.....**\$59.88**

PRINTERS

Okidata

82A Roll Paper Holder.....**\$49.88**
 Microline 83A (P&S).....**\$679.88**
 83A Okigraph ROM.....**\$49.88**
 Microline 84 w/graphics & tractor



Parallel, 200 cps.....**\$1024.88**
 RS-232C, 200 cps.....**\$1139.88**

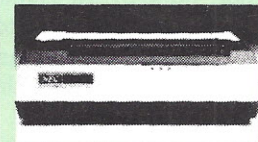
NEC



NEC 3510 (S).....**\$1929.88**
 NEC 3530 (P).....**\$1759.88**
 NEC 3550 (P).....**\$2199.88**
 3500 Tractor.....**\$239.88**
 NEC 7710 (S).....**\$2399.88**
 NEC 7720 KSR (S).....**\$2789.88**
 NEC 7730 (P).....**\$2399.88**

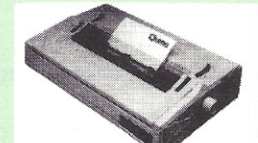
PRINTERS

NEC



NEC PC-8023A (P).....**\$499.88**

Qume



Qume Sprint 11+ Parallel or RS-232C,
 includes cables.....**\$1449.88**

Smith-Corona

Smith Corona TP-1.....**\$579.88**
 Specify either 10 or 12 cpi,
 & parallel or RS-232C interface

Transtar

Transtar 130.....**\$759.88**

CALL FOR PRICES on Cannon, Data-south, Epson, Mannesmann Tally, Panasonic, Ricoh, Silver Reed, & others

Interfaces

PKASO card/cable.....**\$139.88**
 IDS PKASO card/cable.....**\$159.88**
 Parallel Card w/cable.....**\$89.88**
 Grappler+ w/cable.....**\$149.88**
 CBM/PET w/cable.....**\$119.88**
 TRS-80 Color RS-232C to
 Parallel, w/cable.....**\$99.88**
 VIC/Commodore 64 Serial Inter-
 face w/cable.....**\$149.88**

Parallel Cables

IBM-PC.....**\$39.88**
 TRS-80 Model I/III.....**\$29.88**
 TRS-80 Model II/16.....**\$29.88**
 Atari 800.....**\$39.88**
 Osborne-1 (IEEE488).....**\$39.88**
 Prism 80/132/MicroPrism Centronics
 cable adapter.....**\$20.00**

Centronics male/male.....**\$39.88**
 Centronics male/female.....**\$39.88**

RS-232C Cables

DB-25 male/male.....**\$29.88**
 DB-25 male/female.....**\$29.88**

Information & Orders
(603)-881-9855

Orders Only: (800)-343-0726

No Hidden Charges

FREE UPS shipping on all orders—No extra charge to use credit cards—All equipment shipped factory fresh with manufacturer's warranty—COD orders accepted (\$10 fee added)—No purchase orders accepted—No foreign or APO orders accepted—Minimum \$50 per order—This ad prepared in February; prices are subject to change.



HIGH TECHNOLOGY AT AFFORDABLE PRICES
THE BOTTOM LINE

MILFORD, NH 03055-0423 □ TELEPHONE (603) 881-9855

FOX & GELLER

gives dBASE II™ users

10 good reasons why they need

QUICKCODE™

The dBASE II™ Program Generator

Reason #1 Save Time.

Quickcode saves you time, because it can write complete dBase II applications programs in minutes.

Reason #2 Ease of Use.

Quickcode requires *no programming* or computer knowledge. If you can type, then you can create a customer or inventory database in 5 minutes.

Reason #3 dSCAN.™

The unique dSCAN feature lets you *select records based on your own requirements* (e.g. STATE = 'NJ' or AGE > 30). Then you can print them in a variety of formats (or transfer them to Wordstar™ for form letters).

Reason #4 Wordstar.™

If you want to create form letters using your data, Quickcode can transfer any part of your database to Wordstar.™

Reason #5 Mailing Labels.

Want to print mailing labels? With Quickcode, you can get them in *one up* or *four up* format. You can print labels of almost any size or shape you can imagine. For any part of your database (e.g. ZIP CODE = 90023)

Reason #6 Reports.

Quickcode can create an amazing variety of reports and forms. You can even produce reports up to 132 columns by 96 lines per page.

Reason #7 Power.

Quickcode can set up retrieval keys using as many as 10 data fields. You can use these keys to get any record from your database in about 2 seconds. Data entry is also a snap. You can have any data field automatically set to a default value or checked in one of three ways: range checking, match list checking, or file lookup.

Reason #8 Capability.

Now, you can use *four new data types* not found in dBASE II itself: date, money, telephone, and social security. Just what you need to simplify your work.

Reason #9 Menus.

Want to set up a more powerful application? Use the Quickcode menu generator to create a menu system.

Reason #10 Fox & Geller.

Perhaps the most important reason to buy Quickcode. We've built a reputation for quality products that *keep improving*. Like dGRAPH (the dBase II graphics system) and our dUTIL utility.

Fox & Geller's Quickcode: \$295.00

We intend to earn your loyalty by offering software that's the best.

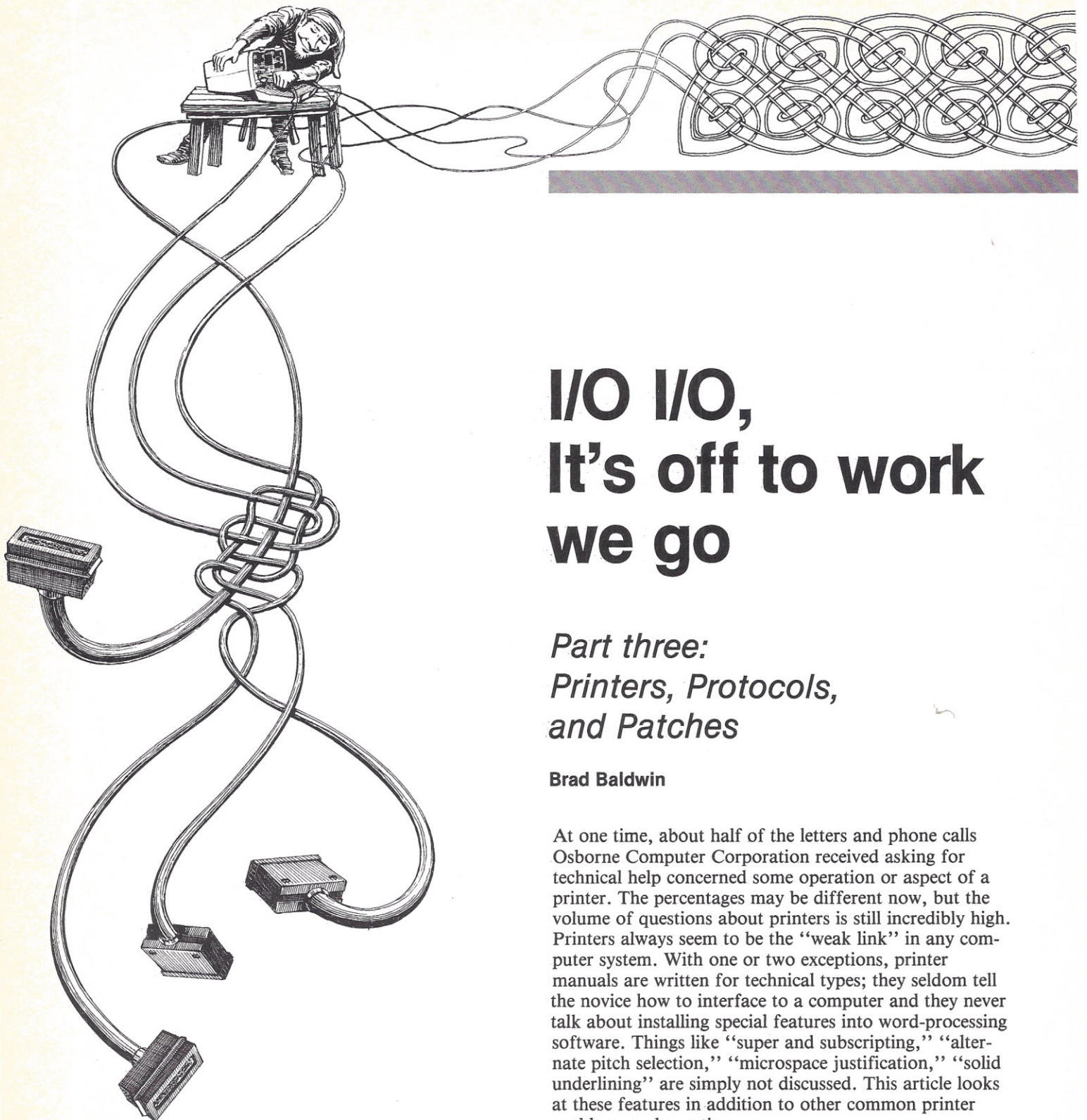
For further information or to see Quickcode in action, see your local dealer or call (201) 837-0442.



FOX & GELLER

Fox & Geller, Inc.
P.O. Box 1053
Teaneck, NJ 07666
201 837-0142

Quickcode and dSCAN are trademarks of Fox & Geller, Inc.
dBASE II is a trademark of Ashton-Tate.
Wordstar is a trademark of MicroPro International



I/O I/O, It's off to work we go

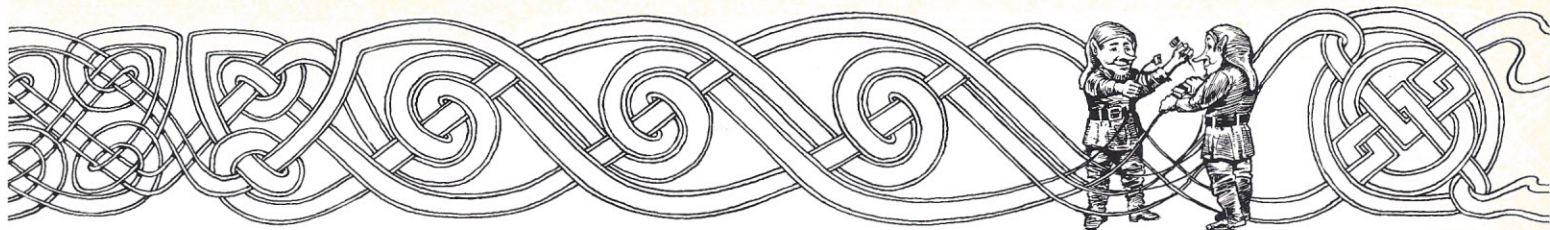
Part three: Printers, Protocols, and Patches

Brad Baldwin

At one time, about half of the letters and phone calls Osborne Computer Corporation received asking for technical help concerned some operation or aspect of a printer. The percentages may be different now, but the volume of questions about printers is still incredibly high. Printers always seem to be the "weak link" in any computer system. With one or two exceptions, printer manuals are written for technical types; they seldom tell the novice how to interface to a computer and they never talk about installing special features into word-processing software. Things like "super and subscripting," "alternate pitch selection," "microspace justification," "solid underlining" are simply not discussed. This article looks at these features in addition to other common printer problems and questions.

Printer manufacturers should not completely shoulder the burden of supporting the myriad of computers and word processing software that exists; it is the responsibility of everyone involved to become knowledgeable on what "the other guy" is doing. Computer manufacturers, software houses, mail-order firms, dealers, and printer companies should all work together in supporting the customer and the product.

I wrote the "I/O, I/O" series with that support ideal



in mind. In the first two articles, (Oct./Nov. and Dec./Jan. issues), serial and parallel interfacing as well as data communications principles were discussed, in the hope of providing hard-to-find information on how printers or other peripherals are connected. In this article, I get down to basics and write about some specific printer requirements and *WordStar* installations.

Communications Protocols (Serial Printers)

A protocol is "a set of rules governing the exchange of information between two systems." Without protocols, communications would be chaotic.

A commonly-voiced complaint is that a serial printer (recently installed) works for a line or two and then dies. Other printers may work for several paragraphs before passing out. Always, the assumption is that there "must be something wrong with my computer."

In either case, the "buffer" is overflowing because there is no "communications protocol." Remember, the computer at 1200 baud sends around 120 characters per second (cps) out of its RS232 port, but the printer usually only prints 12 to 100 cps. The printer lags behind, storing the incoming data in its memory buffer. *When the buffer overflows, data is lost.* Some printers have one line buffers, others have 1K to 16K buffers, which explains the discrepancy between buffer overflows. If the printer is super fast, then problems may never occur. There are several ways to prevent buffer overflowing.

XON/XOFF is a type of protocol available on many printers. When the printer needs to stop the computer from sending any further data (lest the buffer overflow), an XOFF, also called DC3 control code, is sent to the Osborne computer. The Osborne then stops transmission of data. When ready, the printer sends an XON (DC1) control code and the computer picks up where it left off.

The ETX/ACK protocol system is quite a bit different. With this system, the Osborne marks the end of each line it sends with a special End of Text (ETX) signal. When the printer withdraws this line from the buffer, it sends an Acknowledge (ACK) back to the computer, indicating that the computer can send another line of data. XON/XOFF is the preferred protocol for reasons we do not need to go into now. Use "SETUP" to specify the protocol.

There is a more convenient way to prevent data loss. It's called "hardware handshaking." The pin designation is usually listed as "reverse channel," or "secondary request to send."

A handshake is simply an electrical acknowledgement sent from the printer to Osborne's "Data Terminal Ready" line. When the voltage on the hardware hand-

shake line is positive, the printer is ready to accept data, when the voltage falls to negative levels, it goes "off-line" or "busy." Printers like the Diablo 630, Centronics, Epson, Okidata, MPI, and NEC 3500/7700 have this capability through the connection of either pin 11 or 19 (depending upon the printer) to pin 20 on the Osborne 1. (See the Oct/Nov I/O, I/O article for further information.) Some of the newer printers, such as the Smith-Corona TP-1, have built in handshakes that provide those connections automatically without having to swap any pins on the RS232 cable. Very rarely will XON/XOFF or ETX/ACK protocols be necessary with the newer serial printers.

Disabling Line Feeds

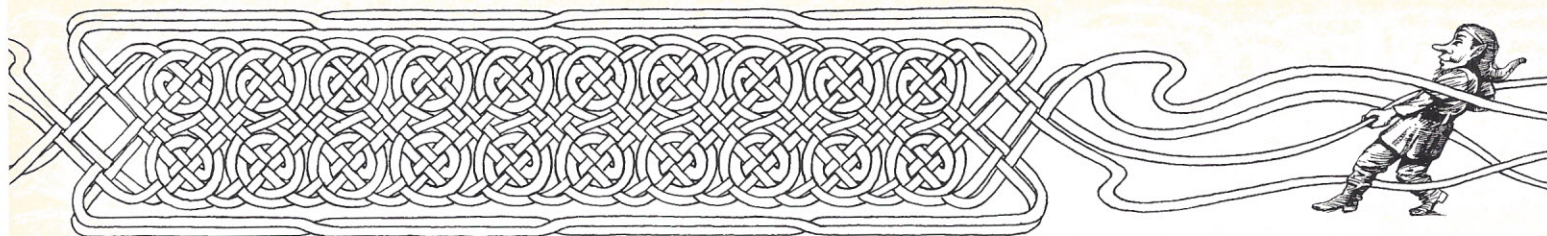
If your printer is double spacing everything when it should be single spacing, then you need to disable the "automatic line feed with carriage return" feature on the printer.

This feature exists because some computer systems do not send out line feeds (LF); they require the printer to tack one on every time it sees the 0D hex carriage return (CR) code. Osborne software is setup to send a CR + LF. The auto LF feature is easily turned off using the appropriate method described in the printer manual (usually a DIP switch).

Radio Shack computers, on the other hand DO NOT send a LF. Line Printers and Daisy Wheel II printers were designed primarily for use with Radio Shack computers—there is no description in their manuals on how to disable auto LF.

There are ways around it, but Radio Shack likes to keep it a secret. First of all, many of their line printers are manufactured by Centronics as an OEM. All of the original Centronics printer manuals describe the process of disabling LF; however, when sold under the Radio Shack label, the manuals were rewritten to exclude any mention of disabling LF. (*Radio Shack recently announced their new line of printers replacing the Line Printer series. Radio Shack informs us that the new units have auto LF switches installed and clearly marked.*)

Secondly, phone calls were made to both Centronics and the Radio Shack folks in order to gather information on what Centronics printers matched up to what Radio Shack printer. We also wanted to know the board levels and component locations to disable line feeds (some of the printers require the removal of a certain resistor or the removal of a jumper to disable LF). Both companies politely declined to release any information whatsoever. Calls to Radio Shack bulletin boards also proved fruitless but we did manage to piece together the information described in Figure 1.



Disabling Auto Line Feed

Line Printer I & III	Set jumper block
Line Printer II & IV	Remove resistor
Line Printer V	Internal DIP Switch (SW 1-3)
Line Printer VI	Internal DIP switch (SW 1-2)
Line Printer VIII	Accessible DIP switch

Figure 1

We do not know the exact location of jumpers or resistors in all models; some of the above printers have gone through three or four different board revisions. It is best to contact a Radio Shack service center for help before tearing into your printer.

Yes, there is a patch available (discussed later) in *WordStar* to kill line feeds, but it does not help much for other software packages.

Let's now move on to "tricks of the trade" when using certain printers. We might as well begin with...

Daisy Wheel II WordStar Patches

These patches kill the extra line feed and install multi-striking, underscoring, super/subscripting in Radio Shack's Daisy Wheel II printer.

Using *INSTALL*, change the printer from "Teletype printer" to "Teletype-like printer that can backspace." Modifying *WordStar* and the use of *INSTALL* are described by Thom Hogan in the *Osborne User Guide* (Pages A-1 to A-12). All address locations refer to *WordStar* version 2.26.

KB				
Ctrl	Label	Address	Patch	Function
^PT	ROLUP:	06BF	02 1B 1C	half LF up
^PV	ROLDOW:	06C4	02 1B 1E	half LF down
	PSCRLF:	0696	01 0D	kills LF

NEC 3500, 7700

Installing true 3/48th inch super/subscripting, microspace justification, bi-directional printing, and access to all incremental horizontal/vertical motion is a snap with two simple modifications to *WordStar*: 1) change the printer type to "Diablo 1640/1650" within the *INSTALL* program; and 2) patch address 06E7 with 01, 06E8 with 0D, and 06F8 with 00.

The printer will generally run about 10 seconds per page faster, and the copy will look fantastic with its microspaced justified print. Figures 2 and 3 show the differences in print quality.

Microspace Justified Text

WordStar is a CP/M compatible, screen-oriented word processing system with integrated printing capabilities. Both the initial entry of text and the alteration of previously entered text are displayed directly on the screen, as you should be able to see. Most formatting functions take place immediately, resulting in the display of a true print image; additional enhancements are performed during printing, if desired. **Osborne Computer Corporation** provides *MailMerge* with *WordStar*, allowing you to integrate data files--such as a mail list--with your text.

Figure 2

Regular Text

WordStar is a CP/M compatible, screen-oriented word processing system with integrated printing capabilities. Both the initial entry of text and the alteration of previously entered text are displayed directly on the screen, as you should be able to see. Most formatting functions take place immediately, resulting in the display of a true print image; additional enhancements are performed during printing, if desired. **Osborne Computer Corporation** provides *MailMerge* with *WordStar*, allowing you to integrate data files--such as a mail list--with your text.

Figure 3

Diablo 630

Like the NEC thimble printers, install as a Diablo 1640/1650 for many additional features. (*The Oct/Nov issue of the Portable Companion contains an article on interfacing this printer.*)

Smith-Corona TP-1

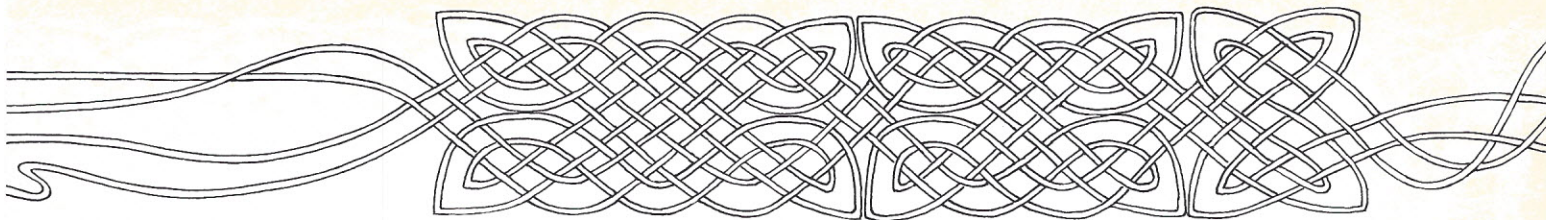
This single line is an example of **BOLDFACE**.
This single line is an example of **BOLDFACE**.
This single line is an example of **BOLDFACE**.

How many new TP-1 owners saw the above the first time a boldface command was issued? The TP-1, like the I/O IBM Selectric, does not have the physical ability to do a carriage return without a LF. When the carriage returns to overstrike the line, it automatically line feeds. A real problem, as you can see.

The fix for this is simple. Simply *INSTALL* the TP-1 as a "Teletype-like printer that can backspace" in order to implement the boldface, underline, and other multi-strike commands. (*See the Oct/Nov "Wizard of Osborne" section for the special cable required by the parallel model.*)

NEC 8023 C.Itoh 8510

These two printers are virtually the same except for the



outward appearance of the front control panel. The only major difference is that the NEC 8023 has the ability to switch select a “device address” i.e., 0, 1, 2, or 3. A device address is like a phone number—it is used to send data to one specific printer when there are several connected to a computer. If the Osborne’s device address is not the same as the printer’s, there is no communication. Invalidate the device address (use the necessary DIP switch), or use the new double density SETUP program to match the device address to that of the printer.

NEC’s normal “CTRL PS” underline fires the seventh needle on the print head and subsequently prints over the bottom of the letters; the appearance is quite homely.

The easiest way to correct this condition is to patch the “graphics” underline character into *WordStar*’s label “ULCHR:”, which stands for underline character. Graphics underlining fires needle 9 and uses a solid line to boot; the appearance is ten times better.

Patches for super/subscripts and graphics underlining:

Label	Address	Patch	Function
PSINIT:	06E7	05 0D 1B 54 31 32	CR, 1/12th “LF
PSFINI:	06F8	02 1B 22	1/6th “LF
PSCRLF:	0696	03 0D 1F 12	CR, vertical tab
PSHALF:	06A8	02 0D 0A	CR, LF
ULCHR:	070C	80	graphics underline
RIBBON:	06DD	02 1B 58	alternate underline
RIBOFF:	06E2	02 1B 59	

Underlining is normally performed only where there is a character. The “RIBBON” patch utilizes the ^PY toggle and performs continuous graphics under all characters and spaces until shut off with another ^PY. To underline several lines in a row, use ^PY at the beginning and end of each line or else the line extends into the left margin.

There is a way to get true incremental rolling super/subscripts using NEC’s reverse line feeding. However, the procedure requires 14 bytes of code and subsequently uses two patch areas and spills into two others. The sequence rolls the paper 3/48th inch up or down; other amounts are easily specified.

KB	Ctrl	Label	Address	Patch	Function
	^PQ	USR1:	06C9	06 1B 72 1B 54 30 39	superscript
	^PE	USR3:	06D3	06 1B 66 1B 54 30 39	subscript

(USR2: and USR4: patch areas are made inaccessible with this particular patch)

Epson MX-80 with Graftrax Plus

How can I get my Epson to properly print superscripts and subscripts?

That, dear readers, is the number 1 printer question asked of us, and probably the number 1 technical question regardless of category. As mentioned in previous issues, Epson made a mistake in their printer manual listing the *incorrect hex codes* for 5 different features, including super and subscripts. There is more to it than that, however, as exiting Epson’s “special” scripts turns double-strike on and bi-directional printing off.

Personally, I do not use Epson’s super/subscripting because of the 1/216 inch line feed for every script printed and the inability to use it with emphasized printing. The 1/216 inch line feed blurs a double strike printed line.

Since scripts seem to be such a hot item, here are two different ways to install it. Method #2 uses the “half-line” feed method of super/subscripts. We threw in several other suggested patches as well.

Method #1

KB	Ctrl	Label	Address	Patch	Function
	^PT	ROLUP:	06BF	03 1B 53 00	superscript
	^PV	ROLDOW:	06C4	03 1B 53 01	subscript
	^PE	USR3:	06D3	05 1B 48 1B 55 00	scripts off
					Bidirect. printing ON

(USR3: infringes upon the patch location for USER4:
USR4: cannot be used. ROLUP: and ROLDOW: could be replaced by USR1: and USR2: labels.)

Use the ^E in addition to the ^T or ^V to turn off scripts, e.g.:

^Tsuper ^T^Escript ^Vsub ^V^Escript

Figure 4 shows what can be done with Epson scripting.

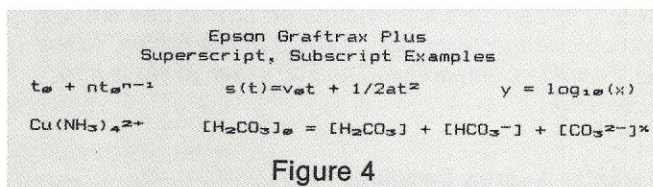
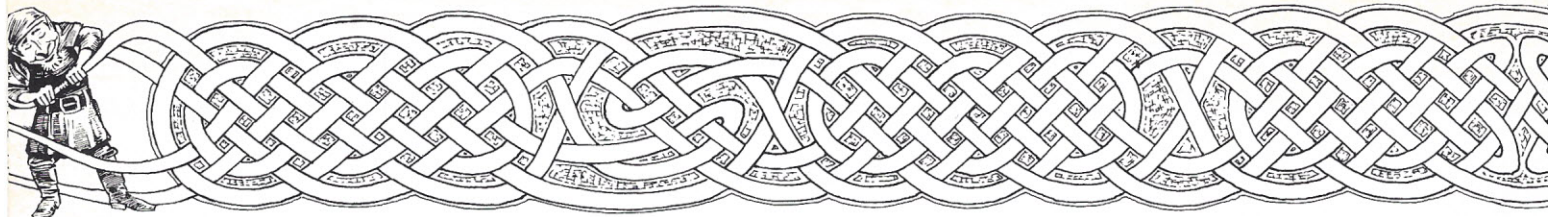


Figure 4

Method #2 (Half line feed)

KB	CTRL	Label	Address	Patch	Function
		PSINIT:	06E7	04 0D 1B 41 06	1/12th “LF
		PSFINI:	06F8	04 1B 41 0C	1/6th “LF
		PSCRLF:	0696	03 0D 0A 0A	CR, LF, LF
		PSHALF:	06A8	02 0D 0A	CR, LF
	^PY	RIBBON:	06DD	03 1B 2D 01	Underlining on



^PY RIBOFF: 06E2 03 1B 2D 00 Underlining off
 ^PA PALT: 06B5 02 1B 34 Italic on
 ^PN PSTD: 06BA 02 1B 35 Italic off
 ^PQ USR1: 06C9 01 0F Compressed on
 ^PW USR2: 06CE 01 12 Compressed off
 ^PE USR3: 06D3 01 0E Double width on
 ^PR USR4: 06D8 01 14 Double width off

PSINIT: and PSFINI: provide the necessary codes for scripts. The RIBBON: patch provides a superior underlining sequence than the normal underline code. The line is solid in color and underlines the space in between words.

C.Itoh F10-40 Transtar 140

These daisy wheel printers are almost identical to each other with respect to components and outward appearance, so they will be discussed together.

The printer is shipped from the factory with something called "RDY/BSY" pre-selected (all six jumpers terminate on "N" lettered pins). This means no special cable or protocol is required.

To get microspace justification, super/subscripts, bi-directional printing, and full access to all incremental horizontal/vertical spacing, simply INSTALL for "Qume Sprint 5 daisy wheel printer."

The C.Itoh F10 requires additional patching to get the above features. The limits for vertical and horizontal motion arguments are reduced through the following patch under INSTALL:

Address		
0797	7A	former value 7E
07A1	7A	former value 7E

(Note: For complete information on DIP switch settings and cable connections, see "Letters to the Editor," Dec/- Jan Portable Companion. The Starwriter 25/45 is also discussed.)

WordStar Address Locations

Most people have different needs and requirements when it comes to patching *WordStar* for the special print features: many of the above patches could have gone into other address locations. Rather than have us define the particular location to install a particular feature, we'll describe available "print control" patch locations in *WordStar*. Once again, much of this information is already in the *Osborne User Guide*.

Both the address and label are given. Often *WordStar* will not recognize certain label names (such as PSCR:). If

this occurs, simply use the address instead.

WordStar Print Control Patch Locations

Label	Address	Default Values
PSCRFL:	0696 02 0D 0A 00 00 00 00 00 00 00	

The first number in the string tells *WordStar* how many bytes to read; in this case, two. Comes installed with Carriage Return (CR) and Line Feed (LF). Changing the 02 hex to 01 kills the LF; changing it to a higher number adds "nulls" slowing the printer down (use with buffer overflow problems on carriage returns).

PSCR:	06A1 02 0D 00 00 00 00 00
-------	---------------------------

String to return carriage to beginning of same line for an overprint command. If your printer can handle it, kill the extra null to speed up the printer. Add nulls if your printer goes berserk during overprinting or carriage return, or it skips characters at the left margin.

PSHALF:	06A8 00 00 00 00 00 00 00
---------	---------------------------

String for carriage return and half line feed for printers that cannot "reverse" feed.

PBACKS:	06AF 01 08 00 00 00 00 00
---------	---------------------------

Backspace sequence.

PALT:	06B5 00 00 00 00 00 00 00
-------	---------------------------

String to set alternate character set or other user defined function. ^PA accesses it from *WordStar*.

PSTD:	06BA 00 00 00 00 00 00 00
-------	---------------------------

Standard pitch (or any other code of your choice.)

ROLUP:	06BF 00 00 00 00 00 00 00
--------	---------------------------

ROLDOW:	06C4 00 00 00 00 00 00 00
---------	---------------------------

Roll carriage up or down. Utilizes the standard super and subscript controls: ^PT, ^PV.

USR1:	06C9 00 00 00 00 00 00 00	(^PQ)
-------	---------------------------	-------

USR2:	06CE 00 00 00 00 00 00 00	(^PW)
-------	---------------------------	-------

USR3:	06D3 00 00 00 00 00 00 00	(^PE)
-------	---------------------------	-------

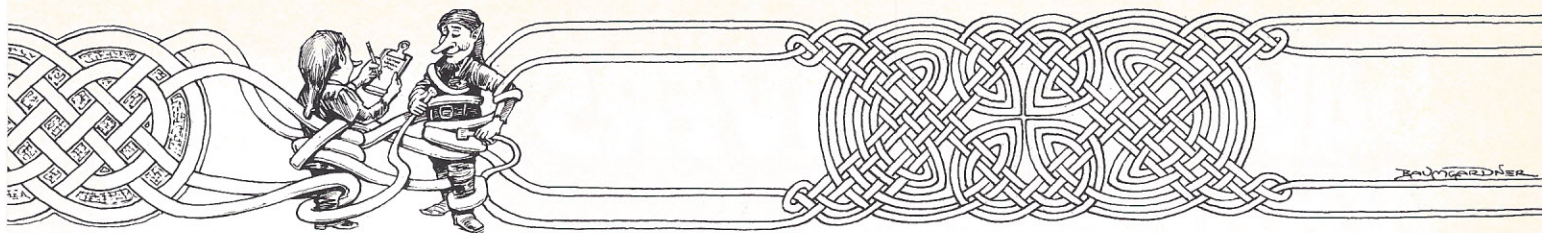
USR4:	06D8 00 00 00 00 00 00 00	(^PR)
-------	---------------------------	-------

User patchable locations.

RIBBON:	06DD 00 00 00 00 00 00 00	(^PY)
---------	---------------------------	-------

RIBOFF:	06E2 00 00 00 00 00 00 00	(^PY)
---------	---------------------------	-------

This is a toggle function. The first ^PY encountered in a file looks at RIBBON:. The second one looks at



RIBOFF:. Although defined for usage with dual color ribbons, it can be used for anything.

PSINIT: 06E7 01 0D 00 00 00 00 00
 00 00 00 00 00
 00 00 00 00 00

Sixteen bytes for a printer initialization string. The CR (0D) ensures that the print head starts at the left edge of the paper.

PSFINI: 06F8 00 00 00 00 00 00 00
 00 00 00 00 00
 00 00 00 00 00

Printer "finishing" string. Might be used to cancel all special features.

SOCHR: 070B 2D

Strike-out symbol. Patch this area if you prefer a different strike-out character.

ULCHR: 070C 5F

Underline character.

With the printer manual at your side, you should be able to install into *WordStar* any additional coding of your choice. The process may appear to be confusing at first, but it really is quite simple. If you need "hands-on" assistance, there are over 70 Osborne User Groups about the country willing to show you how INSTALL and SETUP are used to configure a printer.

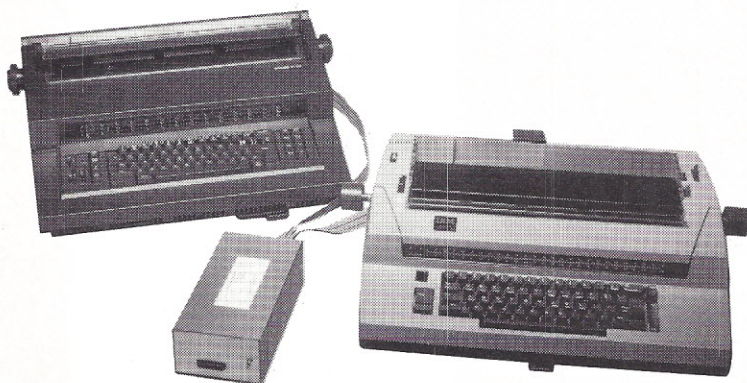
We have mailed out to Osborne authorized dealers application notes on interfacing 20 or so of the most asked about printers. *The Portable Companion* will continue to publish articles on interfacing peripherals in the hope that our readers will become self-sufficient in attaching peripherals.

Future articles will include programs to control and operate scientific test equipment through the IEEE bus.

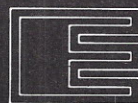


OSBORNETM COMPUTER USERS WE HAVE THE CONNECTION

CONNECT YOUR IBM SELECTRIC, IBM ELECTRONIC OR OLIVETTI TYPEWRITER TO YOUR OSBORNE COMPUTER.



Turn your
typewriter
into a printer
for less than
\$600.



ESCON Products, Inc
12919 Alcosta Boulevard
San Ramon, California 94583

CALL TOLL FREE: (800) 227-2148 CA: (415) 820-1256

DAVONG DELIVERS WHAT EVERY APPLE, IBM, OR OSBORNE USER WANTS.



More
THE DAVONG
UNIVERSAL HARD DISK
SYSTEM.



MORE disk storage.

Expand the disk storage of your Apple II®, Apple III®, IBM Personal Computer®, Osborne 1 Computer™—up to 60 megabytes of fast, reliable Winchester data storage.

MORE value.

Davong 5, 10, and 15 megabyte systems are priced at only \$1995, \$2495, and \$2995. Adding additional Davong slave drives costs even less. Everything you need is included. And because the Davong system is universal, your disk investment is preserved, even if you change to a different personal computer.

MORE software.

The Davong system includes all the software you need to start right away. And Davong's new Multi-OS™ supports all Apple and IBM PC operating systems.

The Davong Multi-OS operating system gives your computer full multitasking network capability. Complete software support includes back-up and restore programs.

MORE backup options.

Davong offers a choice of 18Mb cartridge tape backup or 5Mb removable cartridge disk backup, at extremely attractive prices.

MORE support.

Davong's technical support staff provides immediate answers to your product questions. Just dial our toll-free number—(800) 336-8600—for help or for the name of your nearest Davong dealer.

MORE of what you bought your personal computer for.

Better performance, higher reliability, the best value—hard disk storage from Davong.

The Davong Universal Hard Disk also supports most IBM PC- and Apple-compatible computers.

Apple II and Apple III are registered trademarks of Apple Computer Corporation.

IBM PC is a registered trademark of IBM Corporation.

Osborne 1 is a trademark of Osborne computer Corporation.

Multi-OS is a trademark of Davong Systems, Inc.

Davong Systems, Inc.
610 Palomar Avenue
Sunnyvale, CA 94086



Every week, 2500 more people like you are going to work with an Osborne personal business computer.

They're moving faster than
they were before.

Today, the Osborne 1
Personal Business Computer
sells for \$1795. Complete.
Including software.

The Osborne is port-
able, because your ideas don't
always happen at the office.

The Osborne is affordable,
so there's no reason to wait.

The Osborne is complete.

Dollar for dollar, no other com-
puter comes close.

The Osborne is easy to
learn, fun to use, and quickly
becomes indispensable.

A visit to your local
authorized Osborne computer
retailer will convince you that
today, more than ever, how fast
you go up depends on which
buttons you are pushing.



\$1795. Complete. Including Software.

For your nearest dealer,
call (in California) 800 772-3545
ext. 905; (outside California) call
800 227-1617
ext. 905.

OSBORNE
COMPUTER CORPORATION™

The \$1795 suggested retail price for the Osborne 1 (a trademark of Osborne Computer Corporation) includes a full business keyboard, built-in CRT display, two built-in floppy disk drives, CPU and 64 kilobytes of RAM memory, RS-232 and IEEE 488 interfaces, and the following software packages: WORDSTAR® word processing with MAILMERGE® (a trademark and a registered trademark of MicroPro International Corporation of San Rafael, California); SUPERCALC® electronic spreadsheet system (a trademark of Sorcim Corporation); CBASIC® (a registered trademark of Compiler Systems); MBASIC® (a registered trademark of Microsoft); and CP/M® (a registered trademark of Digital Research).

Saving your ASCII!

Recovering lost files

Dave Lopez & Brad Baldwin

Has this situation ever happened to you? After working several hours on a *WordStar* or *MBASIC* file—perhaps agonizing over one or two perfectly phrased pages—the unimaginable happens. A BDOS ERROR comes flying out of left field throwing you to the CP/M A>—without saving even a nibble, let alone a byte. Or how about this scenario: Your precocious toddler decides to play with the neat buttons on the computer when you step away to answer the phone. The RESET button is pressed; you come back to find the Osborne sign-on message instead of page 5 of the assignment due at 8:00 the next morning. You'll find this article a lifesaver in either crisis.

Part 1: WordStar

The following is a one minute procedure to recover those "lost" *WordStar* files.

Text remains stored in RAM memory, even when the computer is reset or BDOS errors pop up. By using an obscure ability of Digital Research's DDT command (on everyone's CP/M Utility diskette), you can access internal memory, mark beginning and ending text locations, and move the block to hex 100. CP/M's built-in command "SAVE" then writes it to the diskette completely intact.

Let's give it a try.

- 1) Using *WordStar*, write a couple of paragraphs and then press RESET.
- 2) Insert the CP/M utility diskette with DDT in Drive A. Insert a blank, formatted diskette in Drive B, or a diskette that you know has enough space left to incorporate your lost *WordStar* file.
- 3) Step through the following session.

```
A>DDT <cr>
```

```
DDT VERS. 2.2
```

```
-D7321 <cr>
```

```
7321 XX XX XX XX XX etc. ....
```

Because a filename was not specified, DDT calls up memory. *WordStar* starts all text at memory hex location 7321—you should recognize your text in the right-hand column. The left column of numbers represents memory locations for every eighth byte in memory; the central block of numbers represents the actual bytes in memory; and the right column the ASCII characters. Now proceed with the following:

```
-D <cr>
```

This scans another 96 bytes of memory. Keep doing this until the end of the sample *WordStar* text. (Hint: When scanning through longer text, use this command sequence:

```
-D7321,FFFF <cr>
```

Pressing ^S pauses the listing. Pressing the spacebar returns you to the DDT "-" prompt. Press the spacebar twice when paused.)

Next:

```
-M7321,YYYY,100<cr>
```

where 7321 = beginning location

YYYY = ending location

DDT's "M" command moves your file down to location 100 and is necessary to save it through CP/M. Note that the ending location may be well past the actual text in your file—it is only an approximate number.

Next:

```
- ^C exits from DDT
```

```
A>SAVE XX B: FILENAME
```

(where XX = number of hex pages to be saved.)

This is the trickiest part—figuring out the number of hex pages (1 page = 256 bytes) to save. Fortunately, the process is simplified because Digital Research provides a hexadecimal math command within their DDT program. The DDT "H" command subtracts the beginning address from the ending address, and it adds the two addresses as well (not needed in our case). Here's the format:

```
H<ending address>,<beginning address>
```

The first number DDT comes back with is the sum of the two addresses, and the second is the difference—the value we require. You must then translate these values into "pages saved," i.e.: 0300 = 3 pages; 0800 = 8 pages; 0C00 = 12 pages. It does not matter if more pages are saved than required; extraneous garbage at the end of the file is easily erased through *WordStar*. Below is a chart listing several sample "pages saved." (Advanced tech tip: to get rid of garbage at the end of your file without going through *WordStar*, use DDT's "F" option to fill the page after your *WordStar* text with zeros, i.e.:

```
-FZZZZ,NNNN,00<cr> where ZZZZ, is the location of  
the trailing byte immediately following your file and  
NNNN = ZZZZ + 0100h).
```


Sample Page Saves

Start Address	End Address	Pages Saved
0100	0200	1
0100	0300	2
0100	0400	3
0100	04AE	4
0100	04F8	4
0100	0500	4
0100	0D00	12
0100	1000	16
7321	7421	1
7321	7521	2
7321	7621	3
7321	770E	3
7321	7A22	8
7321	7F00	13
7321	8DAA	27

Part 2: MBASIC

The procedures for saving lost *MBASIC* files are almost identical to that of *WordStar*.

Losing a program is especially frustrating because *MBASIC* does not write temporary files like *WordStar* does (FILENAME.***\$) during the edit process. Lose a

program before it's saved to diskette and you've lost it all. As long as there is no loss of power, this tip will recover your lost program.

Two differences exist between saving *MBASIC* files and *WordStar* files: 1) *MBASIC* uses a different starting location (61AE); 2) 61AE must be set from 00 to FF. The rest of the procedures are identical.

```
A>DDT<cr>
DDT VERS. 2.2
-S61AE<cr>
61AE 00 FF (changes the 00 to an FF)
61AF xx.
-M61AE, (ending location),100
-^C
A>SAVE (Pages) B:FILENAME.BAS
```

As in *WordStar*, practice this procedure by writing a short program, pressing RESET, then going through the above steps.

Congratulations. This may seem like a lot of work, but once you familiarize yourself with the procedures it becomes quite simple, taking no longer than a minute. That sure beats several hours of re-typing an article.

Dave Lopez is the Technical Support Lead at Osborne Computer Corporation.

□

Now, you can balance your checking account...
even if you never could before, with

THE SMART CHECKBOOK™

Your personal financial manager

Its unique checkbook reconciliation mode finds the mistakes in your checkbook for you and makes corrections easily.

For example it:

- Shows items returned by your bank which you forgot to enter.
- Locates duplicate entries.
- Finds differences in amounts entered in your checkbook, and those charged by your bank.
- Even catches mistakes the bank made.

In short, it enables you to BALANCE YOUR CHECKBOOK with ease and confidence. Or, an unlimited number of checking and credit card accounts, for that matter.

AND THERE'S MUCH MORE...

A powerful data base manager, checkwriter, budget information, automatic and customized reports and tables.

SMALL BUSINESSES...

Keeps track of Schedule C revenues and expenses and displays them in monthly income statement form for a whole year.

AT TAX TIME...

List and total your tax deductions with pushbutton ease for any of 16 Form 1040 tax categories.

ORDER THE SMART CHECKBOOK NOW...

ONLY \$149. Available for the Osborne 1™ and most other CP/M formats (requires 56K). Dealer inquiries welcome.

Phone: (703) 281-1621 OR WRITE: Box 3456
McLean, VA
22103

SOFTQUEST



CPM is a registered trademark of Digital Research; The Smart Checkbook is a trademark of Softquest Inc.

User Groups

User Group Update

A number of user groups have put the magazine on their newsletter mailing list and we appreciate the input. With the backing of all our end user support groups, we hope to make the User Groups section a broad forum for exchange of information and ideas. Osborne user groups really play the role of ambassadors of goodwill and provide critical support to new owners all over the country. In the interest of bringing readers together with their local group, we are running a recently updated list of groups from all over the country (provided by User Group Liaison, Esther Massie). Those of you out there in the wilderness who have not connected yet, take heed.

International Groups

Bill Marvel
Klondike Osborne User Group
1840 Sun Life Pl. 10123-99 St.
Edmonton, Alberta Canada

Jean Charing
Toronto Osborne Group
9 Glen Arden Rd.
Toronto, Ontario Canada

Chris Bradshaw
Ottawa Osborne CP/M UG
Box 3405, Station D
Ottawa, Ontario Canada
K1P 6H8

Jack Brown
Vancouver Computer Club
P.O. Box 86
Surrey, British Columbia
V3T 4W4

Debra Danny
Danny Osborne Group
15227 Russell Ave.
White Rock, British Columbia

Frank Sayed
Riyadh Osborne User Group
P.O. Box 16381
Riyadh, Saudi Arabia

Carl Berlage
Dutch Osborne User Group
Ave. Concordia 101B/3062
Le Rotterdam,
The Netherlands

Joseph D. McLaughlin
Mogadishu Osborne User
Group
US Embassy Mogadishy
Dept. of State
Washington, DC 20520

Domestic Groups

Alaska

Bart Hawkins
Anchorage Osborne User
Group
100 West Int'l Airport Rd. #106
Anchorage, AK 99501

Dennis Harris
Juneau Osborne User Group
224 Fourth St.
Juneau, AK 99801

Arizona

Don Wiley
Temp Osborne User Group
3013 S. Hart
Tempe, AZ 85282

California

Joel Chabin
Marin Osborne User Group
55 Francis Ave.
Larkspur, CA 94941

Frank Christ
University Osborne User
Group
Cal State University Long
Beach
Long Beach, CA 90840

Art Schlefstein
Northridge Osborne User
Group
P.O. Box 424
Northridge, CA 91328

Rodger Maxwell
Sig/No. Orange City Computer
Club
P.O. Box 3616
Orange, CA 92665

Stuart Chappell
Northbay First Osborne User
Group
1801 Darby Ln.
Sebastopol, CA 95472

Frank Morton
First Osborne User Group
P.O. Box 11683-A
Palo Alto, CA 94306

INDEPENDENT TRAINING PLUS

by J. Gaudio Company

Specializing in Service to Users of the Osborne 1™

Education & Training ☐ Product Development ☐ Telephone Consultation

John Gaudio, creator of the Magic Box and the Static Leash, is helping Osborne users from Florida to Canada through telephone consultation. Call for the answer you need. In Denver, make an appointment to visit J. Gaudio Company's Osborne Independent Training Plus center for hands on experience.

**J. Gaudio Company ☐ P. O. Box 27826 ☐ Denver, Colorado 80227
Telephone (303) 934-1407 ☐ "SOURCE" TCZ707**

Osborne and Osborne 1 are trademarks of Osborne Computer Corporation. Independent Training Plus and ITP are trademarks of J. Gaudio Company.

Scott Brown
Komputer Owners Klub
P.O. Box 40429
Pasadena, CA 91104

Jay Waterbury
Sacramento
26 Moonlit Circle
Sacramento, CA 95831

Ilene Stevenson
San Diego
6904 Miramar Rd. #201-202
San Diego, CA 92120

Roger Donley
San Francisco First Osborne
Group
1662 11th Ave.
San Francisco, CA 94122

Michael Hardwick
Santa Barbara Osborne User
Group
205 Vernal
Santa Barbara, CA 93105

David Felt
Sierra Madre Osborne User
Group
P.O. Box 515
Sierra Madre, CA 91024

Colorado

Tony Wu
Greeley Osbornites
925 16th Avenue
Greeley, CO 80631

Crawford Associates
Denver Osborne User Group
P.O. Box 6932
Denver, CO 80206

John Gaudio
Denver Osborne User Group
P.O. Box 27826
Denver, CO 80227

Connecticut

Michael Zinn
Connecticut Osborne User
Group
15 Birch Lane
Greenwich, CT 06830

Sharon Sauer
Hamden Osborne User Group
130 Davis St.
Hamden, CT 06517

Florida

Eric Ruff
Sun Coast Osborne User
Group
P.O. Box 98
Plant, FL 33566

Jerome Bernstein
Jacksonville Osborne User
Group
325 Arlington Rd.
Jacksonville, FL 32211

Jim Powers
Gold Coast Osborne User
Group
705 Southwest 71st. Ave.
So. Miami, FL 33143

Howard Hilton
Florida Osborne User Group
P.O. Box 1053
Venice, FL 33595

Steve Turner
Suncoast Osborne User Group
2007 12th Ave.
Zephyrhills, FL 33599

Hawaii

Zon Owen
Hawaii Osborne User Group
1142 Hoolai St. #201
Honolulu, HI 96814

Stephen Kaneshiro
Maui Osborne User Group
P.O. Box 485
Kahului, HI 96814

Illinois

James Hanlon
Chicago First Osborne Group
639 Lincoln Ave.
Winnetka, IL 60093

Massachusetts

Jay Siegel
Boston Osborne User Group
165A Mt. Vernon St.
Boston, MA 02108

Elliot Ferander
Western Massachusetts
Osborne Group
Hancock Rd.
Williamstown, MA 01267

Maryland

Mae T. Miyasaki
Greater Baltimore-
Washington OG
9218 May Day Ct.
Columbia, MD 21045

Michael Canyes
Washington Area
Osborne User Group
3117 Lancer Dr.
Hyattsville, MD 20782



Professional Programs
for your Osborne* Computer



Include card number and expiration date.

PHONE ORDERS ONLY: 717-627-0504

Or Write

Post Office Box 1014

Columbia, Maryland 21044

*IBM is a trademark of International Business Machines Corp. *Osborne is a trademark of Osborne Computer Corp. *Mail-Merge is a trademark of MicroPro Int.

MAIL-IT.....\$49.95

Professional mailing list manager stores up to 500 records per diskette. Search and sort on any of 8 fields. Room for 2 names, full address, phone and a comment line. Completely adjustable output formats include directory, labels, envelopes and custom designs. Produces Mail-Merge* compatible files. Handles the new ZIP codes too!

FILE-IT.....\$49.95

Simple screen entry form designer makes FILE-IT a joy to use. Just type in your form directly on the screen and you're ready to begin entering, sorting, and retrieving data and printing reports. Can be used for inventories, indexes, lists, customer or vendor data bases. This is a data base manager that doesn't require a computer science degree to use!

Dealer inquiries invited.

All programs include a complete operations manual and master diskette. MD residents add 5% tax.

Manuals only—\$10.00 each, refundable upon purchase of program.

User Groups

Maine

Frank Heller
So. Portland Maine Osborne
Group
777 Broadway
So. Portland, ME 04106

Michigan

Jim Pease
Lansing Area Osborne User
Group
5135 Jo-Don Dr.
E. Lansing, MI 48823

Minnesota

Karl Karlgaard
 Fargo's Osborne User Group
327 Brook Ave.
Moorhead, MN 56560

Gary Finseth
Twin Cities Osborne User
Group
10 105th Ave. N.W.
Coon Rapids, MN 55433

Missouri

Steve Lents
Missouri Osborne User Group
P.O. Box 28098
Kansas City, MO 64118

Nebraska

Robert Fairchild
Lincoln Osborne User Group
5310 Adams
Lincoln, NE

Nevada

Dick Carr
Greater Reno Osborne User
Group
P.O. Box 8056
Reno, NV 89507

New Jersey

Reuben Mizrahi
Jersey Osborne User Group
P.O. Box 611
New Brunswick, NJ 08903

New York

Paul Wiske
New York Osborne User
Group
46 West 37th St. Suite 3FW
New York, NY 10018

Nick Francesco
First Rochester Osborne User
Group
344 E. Main St.
Rochester, NY 14607

Gene Nelson
Niagara Frontier Osborne
Group
74 Grant St. #4
Amherst, NY 14226

Robert Lindholm
Long Island Osborne User
Group
P.O. Box 190
Oceanside, NY 11572

North Carolina

Michael Rulison
Raleigh Computer Club
3256 Lewis Farm Rd.
Raleigh, NC 27607

Ohio

Dale Brown
Central Ohio Osborne Group
3214 Kenny Rd.
Columbus, OH 43221

David J. Haldeman
Cogwheels
6404 Coffey St.
Cincinnati, OH 45230

Oregon

Ron Beamer
Osborne Business Group
P.O. Box 6530
Portland, OR 97228

Pennsylvania

Martin Van Adelsberg
Pennsylvania Osborne User
Group
625 Stetson Rd.
Elking Park, PA 19117

Tennessee

Alice C. Payne
Smokey Mountain Osborne
Group
Rt. 3, Box 500-4
Oliver Springs, TN 37840

Texas

Robert W. Fishbeck
City of Austin Osborne User
Group
1108 Radan Circle
Austin, TX 78745

Richard Peterson
Osborne Group-College Station
Texas Trans. Inst.
College Station, TX 77843

Justus Baird
Houston Osborne User Group
7430 S. Gessner
Houston, TX 77036

Joel Guerra
Texas Osborne Group
3013 Parkside Dr.
Plano, TX 75075

THE ORGANIZERS



COMPUTER STAND

- Keeps desk clear for you and your work
- Keeps the screen elevated for reduced glare and less eyestrain
- Your system disks and user manuals are kept within easy reach on a handy built-in shelf
- Area is available under the shelf for computer related supplies—Out of the way, out of harm, and out of sight!
- The best computer organizer made is yours for . . .

\$29.50

PRINTER STAND

- Allows a full four inches of paper to be stored under the printer
- Built-in shelf provides space for manuals
- Sturdy and rugged, the finest printer stand available is only . . .

\$27.50

Durable high impact, textured plastic organizers are available in Glacier White.
Dealer inquiries invited.

**APOGEE
DESIGNS
LTD.**

Send check or money order to: Apogee Designs, Ltd., 3100 Fallscliff Rd., Baltimore, MD 21211, Phone (301) 235-7523. MasterCard and Visa accepted. Add \$2.00 for freight per unit to anywhere in the Continental U.S. 5% sales tax for Md. residents.

Virginia

James Kerr
Virginia Osborne User Group
4500 Norman
Portsmouth, VA 23703

Carolyn J.A. Sioris
Northern Virginia Osborne
Group
12602 Saylers Creek Lane
Herndon, VA 22070

Robert Wall Edge
Virginia Osborne User Group
932 West Franklin St.
Richmond, VA 23220

Washington

Chuck Bollinger
Washington Osborne User
Group
2148 Jackson Dr.
Bremerton, WA 98312

Don Slaughter
Northwest Osborne User
Group
19705 1st. Ave. So.
Seattle, WA 98148

Don Hagel
Washington Osborne User
Group
P.O. Box 922
Tacoma, WA 98401

Helpful hints for CP/M and PIP.HLP

Henry Kisor

Here's a hint for the novice *WordStar* user who wants to write a long file in the form of separate shorter files for ease of editing, but has problems assembling them into a single file with the ^KR command: either it is too time consuming and cumbersome, or not enough room remains on the diskette to perform the task. (As the second and subsequent files are merged into the first, the original files remain; this eats up kilobytes at an alarming rate.)

In either case, you can use the CP/M function to create

a new file by means of commas linking the old files on the command line. Example: You have three files, BEGIN.DOC, MIDDLE.DOC and END.DOC, and you wish to assemble them into a single file in that order, WHOLE.DOC.

1. Load the diskette containing those files on Drive B
2. Boot your CP/M System Diskette in Drive A
3. Type:

PIP B: WHOLE.DOC, B:BEGIN.DOC,B:MIDDLE.DOC,B:END.DOC<cr>

That does the job—fast!

But if the sum of the kilobytes of each file you wish to combine is greater than 46K, don't worry. Do it this way:

4. Boot your CP/M System Diskette in Drive A
5. Type: PIP<cr> (you have now put PIP into memory and will see an asterisk prompt.)
6. Remove your CP/M System Diskette and load the diskette containing the three data files in Drive A;
7. Load a blank formatted diskette in Drive B;
8. Type:

B:WHOLE.DOC,A:BEGIN.DOC,A:MIDDLE.DOC,A:END.DOC<cr>

Voila! It's done, and your assembled file resided all by itself on its own disk.

To make things even easier, copy PIP.COM to your *WordStar* work diskette and you'll have one fewer disk to shuffle.

I did not find this neat trick in the *User's Reference Guide*, but in a completely different book. I recommend this book to any Osborne owner since it has been invaluable in helping me discover obscure but helpful nooks and crannies of CP/M. The title: *Osborne CP/M User Guide*, Second Edition (1982), by Thom Hogan (Osborne/McGraw-Hill, \$16.95 paperback).

Henry Kisor is a member of *Chicagos.FOG*. This article was reprinted with permission.

WIZARD of OsZ™

a division of  Contact Enterprises

'Software and Accessories for Osborne™ Computers is our only business'

CHEKWIZ™ — the ideal financial tool for home or office
Handles over 1400 check entries and allows quick search by category, date, or name. Search and itemize a year's checks; ideal at tax time. Handles amounts up to 99,999,999.99. Allows easy entry of service charges, interest, automatic withdrawals, and provides automatic backup to protect against inadvertent loss of data. List \$50

PLINK™ & RCPMLINK™ — now on one disk
Transmit complete file to bulletin board in seconds with user friendly PLINK. Saves files to buffer and writes to drive A or B. RCPMLINK enables fast, accurate block transfer of files between remote CP/M systems (or other Osborne 1 Computers). List \$50

SIGNALMANT™ MARK V MODEM — SourceSM subscription included
A small, light, compact direct connect modem for Osborne 1™. Just plug it in and communicate through any modular telephone. Complete with cables and 9-pin Osborne wired connector. Uses 9v internal battery; 9v dc adapter is available. List \$129

New Releases in Stock
and Immediately Available



GAMES DISK 4 — graphics at play
2DMAZE, 3DMAZE, BOUNCE and LANDER (by Mirashanta). Programmed in CBASIC. Games are in two levels, simple then advanced. All include extensive graphics. List \$50

GAMES DISK 5 — from Casino to Deep Space
Play Black Jack against the computer, the house limit is \$10,000. Or how about a return to the old west to try your hand as a miner? Goldmine has all the rewards and risks you can handle. Then jump into the future with an exciting game of Space War. For a real challenge, try to win at Wizzdot. Match wits with the computer, add line segments to make squares. Make 5 and you win. List \$50

GAMES DISK 6 — educational fun from pre-school to college
Ghost in the Chimney delights pre-schoolers with visible rewards for right answers. Dingo the Cookie Goblin teaches addition and subtraction in a subtle form. Supermind pits your skills against the computer which hides 5 random letters; you have 13 tries to guess the letters in order. . . . List \$50

Write or Call WIZARD OF OsZ™ Your Source for Osborne™ Software

Add \$2.50 shipping & handling
9614C Cozycroft Ave.

Dealer Inquiries Invited
Chatsworth, California 91311

Calif. add 6½ % sales tax
Telephone: (213) 709-6969

Tag

Try to catch a friend who plays with you. This program wins high marks from our Jr. High age testing board. Frankly, it is a simple program, but it is fun! \$15.95
— by Byl

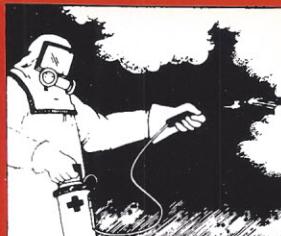
GOTO ARTIST

Valor

This is one of the fastest moving games you will play. You are in an infinitely tall tower. By killing all the monsters on a level, you are given the opportunity for a challenge. The challenge tests your speed, memory, and sense of time. A great hybrid of the "adventure" games and video games complete with stored high score. \$21.95
— by Byl

P=P+500

NUMBUG



RESTORE

Ordering Information

We really would like to see you purchase our software from your local trustworthy computer dealer, but if they are unwilling to stock our beautiful bytes, we cannot let you languish lacking our lighthearted products.

P=P+100

Blank

We really tried to fill all the little boxes, but we came up one short. If you liked our little attempt to make your computer compulsion more pleasant, you will probably enjoy our games. If not, you must be quite busy.

P=1000

VALOR



GOSUB ACID RAIN

Numbug

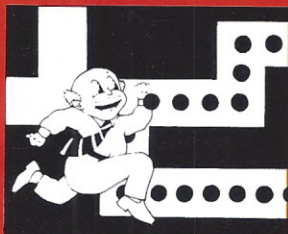
You are a public health official trying to wipe out a deadly virus before it spreads and takes over the town. If you succeed, you move on to the next town. If you fail, ... \$17.95
— by Byl

ON(INT (ROLL/5) + 1)GOTO MAZEWAR,
ARTIST

You may mail in an order any time or call weekdays from 10:00 am to 4:30 pm EST (215) 932-5515. We accept VISA and Master Charge and personal checks and COD's but not stamps or birdseed. Add \$2.00 per order for that slippery overhead called postage and handling. We don't make any promises, but try to ship within 48 hours.

IF P<500 AND ROLL>2 THEN P=P*3

OSZY MAN



GOTO NUMBUG

Ozzy Man

Beats Pac-Man at his own game. Not only do you get all the features of that game in REAL TIME using GREAT graphics, but you can win the transporters which can get you out of tight spots with the bash of a key. \$26.95
— by B. Bang

P=P*2

Play Portable Software

HOW TO PLAY:

You will need a die or the following Basic program:

```
10 IF INKEY$ <> " " THEN PRINT N:PRINT  
20 N=N+1: IF N>6 THEN N=1  
30 GOTO 10
```

Start at the beginning (RUN), then move the number of spaces "rolled" clockwise, not crossing major barriers. Obey the instructions there and keep track of your points (P). If stumped, consult a Basic manual. All locations refer to the pictures of the programs, not the descriptions. Note that finishing first is absolutely no guarantee of winning. You can play solo as well and keep track of your high score.

It's fun!
Whee!!

Artist II

The same great features of Artist with an added capability of supporting hard copy of screen graphics to an Epson with Graphtrax. \$26.95

GOTO NUMBUG

ARTIST



GOSUB ACID RAIN

Maze War

A video game which uses the entire 128 by 32 screen of the Osborne. You are trapped in an infinite (wrapped around) maze and try and stay alive. There are four other creatures in the maze, each with a different way of moving about, and a different way of destroying you. \$20.00
— by Byl

GOTO TRAPPER

MISSION 675



IF ROLL=3 THEN P=P*3

RUN

(buy an Osborne I computer)

P=0

Artist

A program which explores the Osborne graphics. We developed this program to draw some of our own screens. You can draw, edit and save screens 52 or 128 characters wide, recall them, and work on them more. The storage format is easy to call into other programs so you can access your screens in an application program. This program also has a hypnotic feature of computer generated art. The computer will draw a screen, let you look at it a moment, then draw another. \$21.95
— by Byl

RESTORE

MAZE WAR



READ P

MISSION 675

A robot drone planet has gone wild. You must destroy its reactors before it launches an attack. You must navigate in a cave and defend against missiles launched up at you. \$29.95
— by Mark Kuzmack

P=P-1000

Contest

Are you into contests? We're not. But to show that we're good sports, the first person who can guess the serial number of our first Osborne 1, (one guess per card or letter), will receive \$100.00. PS and OCC folks excluded, void where void.

RETURN

ACID RAIN



P=P+1000

Catacomb

Descend into the catacomb if you dare. A video game where you maneuver for points and survival. A whole new game like nothing you've seen. Aliens are gone from their maze-like catacomb. You have the opportunity to raid their golden eggs and find hidden elixirs if you can avoid the defenses of the CATABOMB. \$19.95

— by Byl

P=P+200

END

DATA 100, 2000, 500, 100, 700:
END

Othello

Tired of fast action video games? Here is a strategy game for you thinkers. It's you against the machine at 3 levels. Uses Oz Graphics and is very friendly. \$19.95

— by Thomas Apalenek

RETURN

Acid Rain

Whether you are catching bombs, eggs, or raindrops, "catch" games can fascinate for hours. The rain is coming down harder all the time, and we have to neutralize it before it hits the ground. \$17.95

— by Byl

P=P/5

CATABOMB



P=P/2

Authors

We are the place for games for the Osborne 1 (tm). If you have a game you have written, send a disk along, a we'll take a look. Hackers take note. Good money here.

READ X:P=P-X

PORTABLE SOFTWARE

TM

Starbase Omega

A day in the life of a starbase. This engaging game has three modules. You must first fend off Klingon attacks on the starbase, then you must successfully navigate through an asteroid belt, and finally dock at the starbase. All three parts are fast moving wonders which masterfully use Osborne graphics. Top five scores are stored. \$25.00

— by Mark Kuzmack

LEARN TO PROGRAM

STARBASE OMEGA



RESTORE

SPACE RAIDERS



READ X:P=P+X

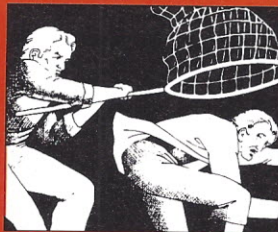
Survivor

You have seconds to dodge androids bent on your destruction! Sometimes they are invisible; sometimes they look just like you; sometimes they move too fast to believe; but they are ALWAYS a challenge! SIXTEEN different action screens! \$26.95

— by Greg Pflaum and
Danny Widmann

RESTORE

TRAPPER



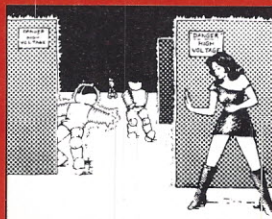
P=P+100

Star Trek

One of our most popular programs. This is the classic game complete with warps, ion drive, photon torpedoes, phasers, short and long range scan and starbases for recovery. Our program features an option for a printed map of the galaxy to help you ferret out the Klingons. This program is enhanced with Osborne graphics! \$17.95

P=P*2

SURVIVOR



READ P

Trapper

You've seen this game on video sets. Try and box in your opponent without running into anything yourself. Ours has some interesting variations. You are represented on the screen by your initial, and there are two speeds to be used within the game. \$17.95

— by Byl

IF P/5000 THEN P=1000

Boggled

Much like the famous word game, only better. No cubes to goof with, automatic scoring. For two or more players. \$17.95

— by Byl

GOSUB ACID RAIN

Star Raiders

Unbelievable! This program simulates REAL TIME navigation through the universe. You turn the ship, stars move. You move forward, they come at you. That's only the beginning! Warps, Hyperspace Transfer, Attacks from hostile forces. . . This is the ULTIMATE space navigation game for the Osborne 1.

\$29.95

— by Don Bartholomew

GOTO OZZY-MAN

User Groups

WordStar/MailMerge Tips

Barry Heil

In a previous issue of *The Portable Companion* an article appeared on how to print labels three across using *WordStar* and *MailMerge*.

How often have you set up a file or form letter using *WordStar* and then forgotten what information or filename you established for the datafile to be used?

I have established a small demonstration below with the use of a file called MERGE.TXT and 1UP.ENV to show you how to merge a PRINT FILE and DATA FILE together.

This is accomplished by first setting up the following dot commands at the beginning of the merge-print file:

```
.CS
.DM -----
.AV "Name of file to MERGE-PRINT",FILE1
.AV "Name of file for DATA",FILE2
.DM -----
.CS Your files are being Merged and Printed
.FI &FILE1&
.DF &FILE2&
.RP
```

The .AV dot command allows you to enter information from the keyboard. The dot commands .FI and .DF places the keyboard information into memory and starts to look-up and merge and print. The dot command .RP searches for all data in file to be merged.

The next step is setting-up the following dot command at the beginning of all your new files to be merge-printed:

```
..1UP.ENV (name of file)
.OP
```

```
.PL 26
.MT 12
.MB 0
.DF &FILE2&
.RP
.RV COMPANY,NAME,ADDRESS,CITY,STATE,
ZIP CODE
(35-40 SPACES) &COMPANY&
&NAME&
&ADDRESS&
&CITY&,&STATE& &ZIPCODE&
```

.PA

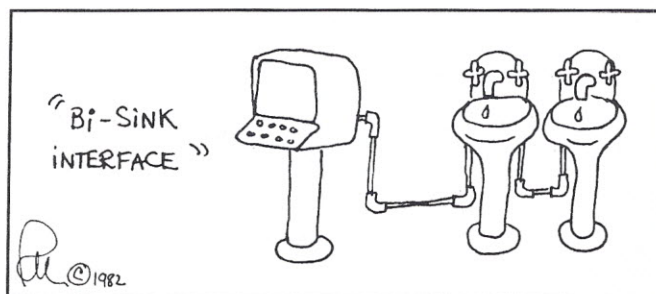
Note how the .DF dot command follows the same information as the "MERGE.TXT" file established first.

And the date file itself would be:

JOG,JOHNDOE,P.O.BOX 611,NEW BRUNSWICK,NJ,08903

To use, simply address Merge-Print "M" and enter the filename MERGE.TXT, the prompts will do the rest of the work.

This article was reprinted from JOGSPRINT, the newsletter of the Jersey Osborne Group.



OsSTAND™

DESIGNED TO RAISE YOUR OSBORNE VIEWS:

- **Elevates Osborne Screen** - comfortable heads-up view virtually eliminates eye strain, sore neck, and backache.
- **Fully Adjustable** - to suit your individual preference, you can tilt your screen 8-20 degrees (and 9-12 inches above your desk).
- **Functional Storage Space Built In** - you can neatly extend your Osborne's disk storage and natural A:program B:data file scheme.
- **Quality Construction** - solid oak and composition board, with dark wood stain and charcoal grey finish to match Osborne's understated elegance.

\$89.95 plus \$5.00 shipping anywhere in continental U.S. Check or money order. Colorado residents add sales tax. Please allow 3-5 weeks for delivery.

MICRO METHODS™ P.O. Box 25905 Colorado Springs CO 80936



Integrating SuperCalc Files With WordStar Files

Ann Babits and David Ruttenberg

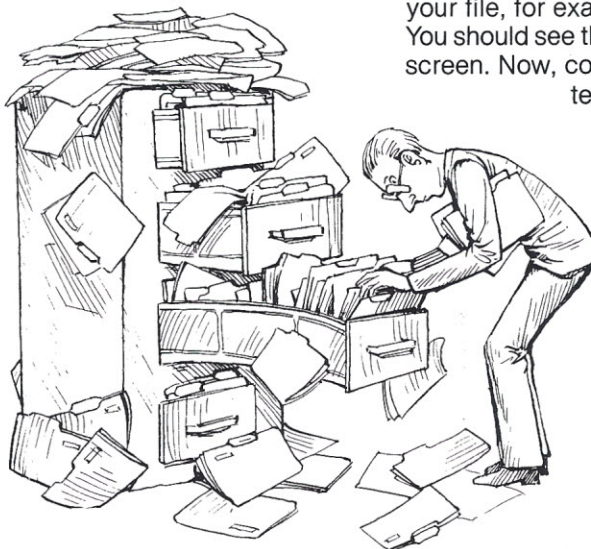
The purpose of integrating *SuperCalc* files with *WordStar* files is the production of a report which has tables, mathematical calculations, or spreadsheet models to support or further illustrate the text. For example, if a prospective business owner was writing a business plan to help secure a bank loan, the plan would contain written text describing the company and its business purpose, the local market, the site selected and other subjects. Integrated throughout the business plan text would be tables showing total effective buying income in the market area, businesses by size in the area with totals of their sales, a balance sheet, and other illustrative tables.

There are just a few simple instructions to produce this integrated, effective report. First, with the *SuperCalc* program diskette in Drive A and a blank, formatted diskette in Drive B, prepare your first *SuperCalc* file. To save this file, use "IO" for Output, "D" or "C" for your choice of either Display or Contents, the range, and

then "D" to store file on diskette. Enter a filename such as "B:DAVE". Because you are saving this file on the Drive B diskette, the filename must be prefaced with a "B:". Repeat these instructions for each subsequent *SuperCalc* file you wanted saved, using the same filename with a number to distinguish the files. For example:

"B:DAVE1", "B:DAVE2", "B:DAVE3", etc. Remember that *SuperCalc* has saved files named with the ".PRN" suffix ("B:DAVE1.PRN", "B:DAVE2.PRN", etc.). This suffix stands for "print file".

Now, quit the *SuperCalc* program, replace the *SuperCalc* diskette with the *WordStar* diskette, and boot up *WordStar*. Log on to the B drive. Prepare your text on the same diskette in Drive B. At the appropriate point in your text where you want to integrate your first *SuperCalc* file, type control "KR" for Block Read and the name of your file, for example "DAVE1.PRN". You should see this file appear on your screen. Now, continue with additional text if needed, inserting the *SuperCalc*



There Are Two Types of Osborne 01™ Wordstar™ Users: Those Who Have Accidentally Lost UNSAVED Text and Those Who Are Going To . . .

BUT, EVEN WHEN THE DOCTOR CAN'T HELP YOU . . .

IMAGE CAN!

Announcing **IMAGE!** A new, easy-to-use emergency program designed just for your Osborne computer. Written in assembly language, **IMAGE** is all you will usually need to recover unsaved textual material lost while using Wordstar. **IMAGE** rescues text from memory instead of from disk and it will work in these unpredictable situations:

- FULL DISK
- WRITE-PROTECTED DISK
- BAD DISK SECTOR
- ACCIDENTAL FILE ABANDONMENT

- STATIC DISCHARGE
- ACCIDENTAL RESET
- POWER BROWNOUT (but not blackout)
- And any other problem or error which does not erase memory or disable the reset button.

The Price? **ONLY \$25.** (Includes full documentation). If you value your time, **IMAGE** will probably pay for itself with one use. 15-Day Money-Back Guarantee.

Send Your Check to:

TANSTAAFL

6813 Kettering Circle, Fair Oaks, CA 95628

California residents please add 6% Sales Tax

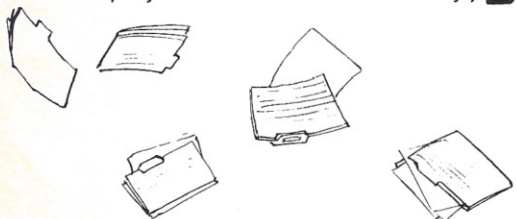
TRADEMARK OF OSBORNE COMPUTER CORP. AND MICRO PRO INT.

User Groups

files where appropriate by following the above instructions for Block Read.

When the report is complete, with all the *SuperCalc* files integrated into the *WordStar* file, you can print the completed product. To accomplish this printing, first use control "QR" to jump to the beginning of the text and use control "KB" to set the Block Beginning marker. Use control "QC" to jump to the end of the text and use control "KK" to set the Block End marker. This marks the entire text as one block. Use control "KW" for Block Write. When prompted for the filename, use the name with the ".PRN" suffix (e.g. "DAVE.PRN"). Now you can print the document with control "KP" and the filename (e.g. "DAVE.PRN"). You should have in your hands a complete effective document with *SuperCalc* tables integrated into your text.

(This article was reprinted from the Jersey Osborne Group (JOG) Newsletter, JOGPRINT. Ann Babits is an employee of Osborne New Jersey.)



Battery-Powered Use of the Osborne 1

Jeanne Altmann

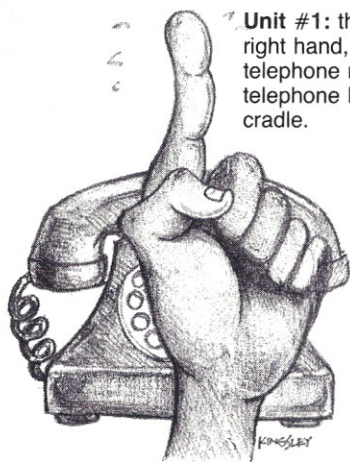
Since December 1981 we have been successfully operating an Osborne from 12V batteries that are recharged by solar-cell panels. We use this machine as an integral part of data collection and report writing for biological research in a wildlife park in Kenya, East Africa. Although we initially encountered a number of problems with each part of our system—overcharging by the solar panel in the equatorial sun, one apparently dead cell in a battery, and design problems in our initial test prototype Osborne battery pack—all the bugs seem to be out and it is now hard to imagine not having a computer at our field site.

The only major problem we encountered with the test version of the battery pack has now been eliminated in the battery pack that Osborne is marketing. The prototype pack that we used until recently was factory-installed inside our Osborne 1. Because the design involved conversion of 12V DC to 110V AC an intolerable amount of heat was gener-

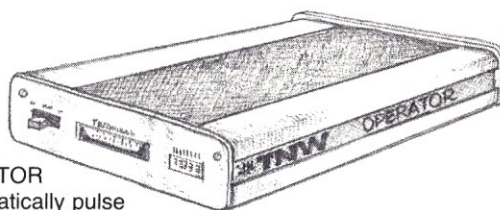
ated and retained within the computer, a problem made worse by the beige case. The heat problem has been eliminated by the battery pack itself now being contained on the external power cord, which simply substitutes for the removable 110V AC cord that is used for operation off house current. The far end of the battery pack cord has a cigarette lighter jack for use in a vehicle. For use directly off a battery outside a vehicle we purchased an auto appliance plug at Radio Shack and put appropriate battery terminal clips on the end of this.

Our use of battery operation is probably much more extensive than is required by most Osborne users who need battery power only occasionally, for relatively short periods, and who have access to line current or to a vehicle for recharging the battery. However, our experience may be helpful for even the more casual battery user, and for those few who require more complete battery operation some of our experiences and prob-

Digital Dialing Units For Your Acoustic Coupler



Unit #1: the index finger of your right hand, used to manually dial a telephone number and place the telephone handset in the coupler's cradle.



Unit #2: TNW's new OPERATOR

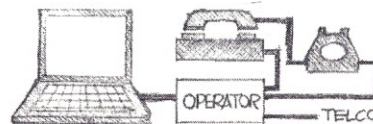
Automatic Calling Unit, automatically pulse dials under computer or terminal control. Also provides unattended telephone answer capability. Use it with your acoustic coupler or most direct connect modems. 110 to 300 bits per second, powerful command interpreter, RS-232 interface to computer or terminal. Complete with power supply, cabinet, documentation, and full one year warranty for only \$129.



TNW
CORPORATION

Dept. 9

3444 Hancock Street, San Diego, CA 92110
(619) 296-2115 • Telex 11 910-335-1194



lems may be particularly useful. Not surprisingly, we find that the length of computer time we get from a battery varies enormously, depending on the kind of use we are making of the Osborne 1. Thus, for text collection with little disk drive operation we get 50 minutes of use from a 5 amp-hr sealed lead-acid-gel battery, but we get only 30 minutes of use when we are running our main *Fortran* program that involves a lot of I/O and disk access. Although a low-battery warning tone was built into our original battery packs, this tone did not always sound in time to save-to-disk material currently in memory. Although frequent saving-to-disk depletes the battery more rapidly, this precautionary measure has been worthwhile for us, as has keeping a log of battery use so that we aren't caught unawares by a low battery. We have also found that the image on the screen usually becomes somewhat distorted before the warning tone sounds, and a save is usually successful if made at that time. We have not yet used the new battery pack enough to see if this is a problem in the marketed version. An ideal battery-powered system should include adequate low-battery warning.

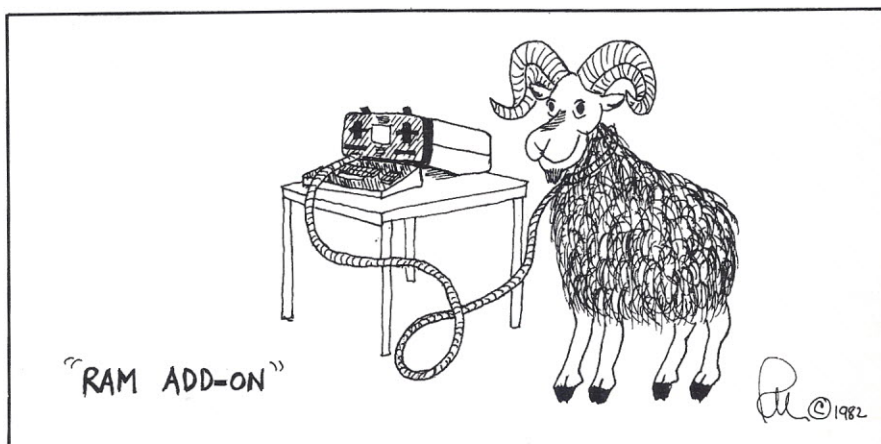
Some final information for the serious battery user or perhaps for

those users who are just interested in energy conservation. When we sought a printer for use in Kenya that would draw as little power as possible, the Epson 80 and the Okidata 82A were recommended. Using a power inverter we tried both printers and found that the Okidata, despite the fact that it prints 50% faster than the Epson, could be run using the Normal setting on the inverter whereas the Epson required the Boost (high) setting and yet we seemed to get just as many minutes of operation from a battery when using the Okidata as when using the Epson. The Okidata has now been running successfully for over half a

year under field conditions.

A 12V output solar panel (we got ours from Silicon Sensors in Dodgeville, Wisc.) charges the batteries for both the computer and the printer. The 1.2 amp-hr panel (18" x 24") that we use takes about 5-8 times as long to charge a battery as the Osborne takes to deplete it. Although this is often a constraint for heavy battery use it will probably not be a major limitation for those many users for whom battery operation is brief or occasional.

(This article was reprinted from *PIP*, the newsletter of the Chicagos.FOG, with permission.)



Professional Power ToolsTM

TAILOR-MADE SOFTWARE AT READY-MADE PRICES

Easy-to-use and powerful software modules are now available that you can put together to suit your own unique requirements. Incorporate only those options needed for your own customized professional applications. Don't pay for features you'll never use — buy a low-priced start-up package and add a piece at a time, as your requirements grow. Designed especially for the **OSBORNE 1TM**.

TRY US ON FOR SIZE

Get started with **EZPLOT** — part of our PROfessional GRAPHics PACKAge. Transform those dull numbers into eye-catching graphs in popular business and scientific formats. Input data directly or read it from SuperCalcTM, dBase IITM or other ASCII files. Display your graph on the screen, edit it, add captions and then print it — or send it to WordStarTM for further touch-up and combine it with text. Order your starter set now and add other accessories later to make pie charts, multi-line plots, log plots, bold-face word charts, block diagrams, regression lines and high resolution dot matrix graphics.

EZPLOT I—makes line graphs and scatterplots on most dot matrix and daisy wheel printers—only **\$25.00***

EZPLOT II—makes bar graphs—horizontal, vertical and stacked—with different shadings—only **\$35.00***

ORDER **BOTH** for only **\$80.00*** Specify printer make & model *Add \$1.50 p&h—CA residents add 6% sales tax



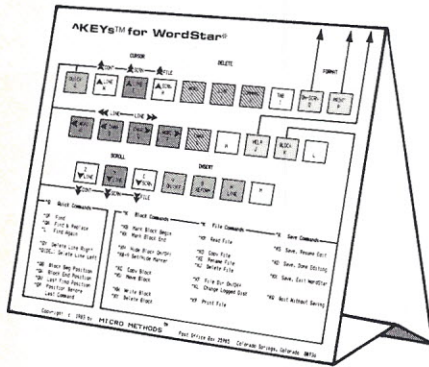
SEND YOUR CHECK to The SOFTWARE SUPERMART

P.O. Box 16174 Irvine, CA 92714 or call (714) 752-0748



Other PROFESSIONAL POWER TOOL Sets: TAXPACKAge, FINancePACKAge, STATisticsPACKAge & more to come.

How Do You Say FIND in WordStar®?



^ **KEYs™** for WordStar
can help mediate your mnemonics:

- FIND can be found in a flash! (along with color-coded QUICK, CURSOR/SCROLL, DELETE/INSERT, and BLOCK/FILE ^ **KEYs**)
- HELP, ON-SCREEN formatting, and PRINT ^ **KEYs** and dot commands can be found on the flip side.
- ^ **KEYs** stand up for easy viewing, and fold flat for fully portable storage (same size as 5-inch WordStar disk).
- After learning WordStar from manuals, you can concentrate on your compositions, with ^ **KEYs**.

\$5.95

Colorado residents add sales tax. Send check or money order to:

MICRO METHODS™
Post Office Box 25905
Colorado Springs, CO 80936

®WordStar is a trademark of MicroPro

READY TO RUN

OSBORNE & ASSOCIATES ACCOUNTING PACKAGE

What's so unique about our accounting package? It works.

When you run this Osborne & Associates Accounting Package on your Osborne 1™, it won't need any changes or modifications. It is specifically modified for the Osborne 1™. When we say it's ready to run, it's ready to run.

Don't be fooled by less expensive packages that "work" on the Osborne™. They don't. They all require changes and modifications. All you need to do with our accounting package is use it.

The complete package includes General Ledger, Accounts Receivable, Accounts Payable, and Payroll with Job Costing, and sells for \$600. (Specify single or double density.) It's unique—it works.

To order, send your check to:

DATAFLOW
1200 S. MILITARY HIGHWAY
P.O. BOX 13205
CHESAPEAKE, VIRGINIA 23325
(804) 424-1656

new Products

Bringing the Accountant Home

Continental Software's top selling financial system, **The Home Accountant**, has been released for use on the Osborne. Billed as "a powerful, yet easy-to-use financial management system," The Home Accountant can perform a variety of accounting functions—from balancing several checkbooks to monitoring cash flow, checks, credit cards, assets, liabilities, income and expenses, as well as printing statements.

The version of The Home Accountant for the Osborne format includes an added forecasting feature and sells for \$99.95. It is available at computer and retail stores throughout the U.S.

Continental Software
11223 S. Hindry Avenue
Los Angeles, California 90045

Playing the Stock Market

Blue Chip Software has converted its popular educational game, "MILLIONAIRE, The Stock Market Simulation" to run on the Osborne. Blue Chip is also including as an integral part of the game a program generator which will actually build new scenarios of the game. This allows the user to create new scenarios in approximately six minutes.

Before making your first million, though, you'll need to invest \$99.95 in the game, available either through Blue Chip Software or local software stores.

Blue Chip Software
19824 Ventura Boulevard,
Suite 125
Woodland Hills, California 91364

Move 'em Out

If you have several CP/M computers but have had a hard time making them talk to one another, Elektroconsult thinks it has a solution for you. **File Mover**, a CP/M-to-CP/M file transfer utility, was recently released on several popular disk formats, including Osborne, Rainbow and Zenith. Elektroconsult advertises its new product as "easy to use" and "modestly priced" (\$59.95 for disk and documentation, \$8 for handling and shipping).

File Mover transfers any sort of CP/M file—including program files—from one computer to another over a serial link. It runs on 8080, 8085 and Z80 microprocessors and can be used with baud rates up to 9600. Error protection and correction protocol with checksums and automatic retry are features ensuring error-free file transfer.

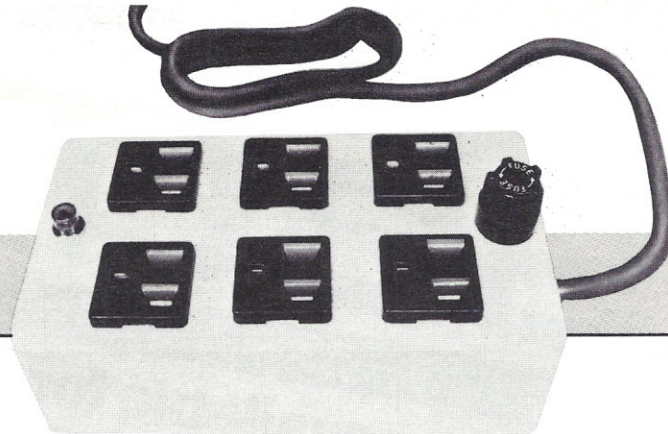
Elektroconsult
Konnerudgt. 3
N-3000 Drammen
Norway

Portable Realtor

Real estate software previously available only for mainframes has been translated into CP/M by Digital Marketing. Developed and tested in a commercial real estate practice on properties ranging from \$300,000 to \$14 million, **Real Estate Analysis** is being marketed to "individual professionals and serious investors."

Real Estate Analysis forecasts one investment for one-to-ten years under different criteria, such as price, loans and income. From user-supplied data, it will project gross income, operating expenses, resale value, pre-tax cash flow, loan analysis and depreciation data. The price is \$195.

Digital Marketing Corporation
2670 Cherry Lane
Walnut Creek, California 94596



Constant Flow

Panamax, a manufacturer of electrical line conditioning equipment, has announced the introduction of a **surge suppressor and noise filter combination device**. The combination of surge suppression and noise filtration in the common and transverse mode is particularly effective in eliminating power line-induced disturbances which cause component damage and logic disruption to sensitive electronic equipment.

The Panamax surge suppressor and noise filter combination device protects sensitive electronic equipment from transient voltage and line noise and improves circuit compo-

nent and system reliability. The price ranges from \$55 to \$139, depending on number and style of outlets.

Panamax
150 Mitchell Boulevard
San Rafael, California 94903

Covering All the Bases

A recently released book, entitled **"Data Bases for Business"** by Van Mayros and D. Michael Werner, promises to make quick, accurate work of the otherwise tedious chore of data base search and selection. After first explaining how to use a data base and

how to find the most appropriate one, the book profiles over 400 data bases. Each profile contains 14 vital entries, including subject, class, data sources, size, maintenance and applications.

Several selective features make this a useful guide: a subject cross reference, geographical and time coverage, on-line access and application examples.

Chilton Book Company
Department DM
Radnor, Pennsylvania 19089

SOFTWARE & ACCESSORIES for the OSBORNE

WE RAN OUT!

Sorry, but if finally happened. Yep, we finally ran out of our SUDDEN! FREE GREEN SCREENS, and we won't be getting any more. We still have a lot of great deals, though, and we hope you'll take advantage of 'em! Actually, this is just a sample of what we have available for you. If you're interested, check out our free catalogue for a complete description of our latest software & accessories for the OSBORNE.

PUBLIC DOMAIN PACKAGE \$90

This package contains TEN DISKETTE SIDES absolutely packed with great programs! Many are from the CP/M users group material, with some altered programs formatted especially for the OSBORNE, and some new material, all of it in the public domain, available at \$20 each, or \$90 for the entire package, including:

- Modem 7
- Calendar File
- Z-80 Assembler
- Z-80 Disassembler
- Original Adventure
- Utility Programs
- Master Catalogue
- Math Package
- Disk Nurse
- Castle & CIA Adventures

BONUS: OSBORNE ACCOUNTING GENERAL LEDGER (four diskette sides configured for the OSBORNE)
★ ★ FREE ★ ★ Until July 4th, 1983.

ACCESSORIES

\$5.00 OFF

WAS

Six-foot Keyboard Cable	\$25
Ten-foot Serial Printer Cable	\$30
Ten-foot Serial Modem Cable	\$30

\$10.00 OFF

CVA-1 Monitor Adaptor	\$37
-----------------------	------

\$15.00 OFF

Six-foot Parallel Printer Cable	\$45
(guaranteed to run ANY parallel printer)	

NO DISCOUNT

WORDSTAR® Keyboard Overlay	\$17
SUPERCALC® Keyboard Overlay	\$17
MBASIC® Keyboard Overlay	\$17
(Please specify whether for BLUE (new) or TAN (old) OSBORNE)	

SPECIAL GAMES PACK \$50

Arcade Patman	\$30
Games #1	\$20
• Train	
• War	
• Bomber	
• Bzzt	
• Calc	
Games #2	\$20
• Snake Race	
• Bug Crawl	
• Squiggle	
• Tail Chase	

OTHER OFFERINGS

Baudrate Setter	\$20
(Sets 300-1200-9600 Baud)	
Home Finance	\$20
(Development System)	
Active Trace	\$115
(MBasic Programmer's Tools)	
dUTIL	\$70
(dBASE II Programmer's Tools)	
Pascal Sort Package	\$180
(The fastest sort routines!)	
Hex-Print-R	\$38

WORDSTAR INSTALLED \$20

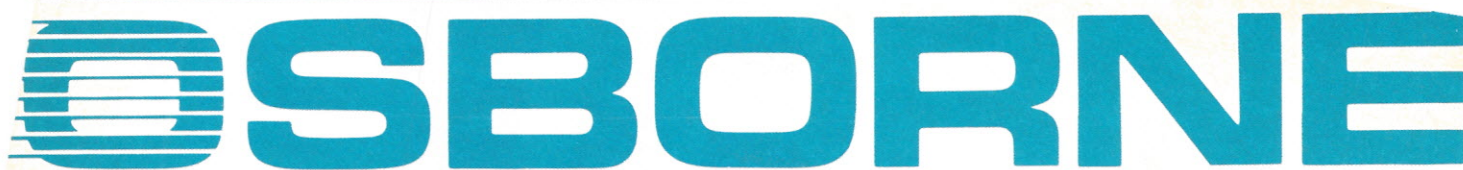
You love WORDSTAR, but you can't get your printer to do all you need? This is for you! Send us \$20.00 and a copy of your WORDSTAR and we'll patch your WORDSTAR to drive your Printer. Get functions like large, medium, small type faces, subscript/superscript,* attractive underlining, 6/8 lines per inch. Available for NEC, C-TOH, OKIDATA, and EPSON printers.

(*available only on NEC and C-TOH)

SUDDEN! PRODUCTS GROUP

1512-C PUALELE PLACE, HONOLULU, HI 96816
(808) 735-1955

HAWAII Residents add 4% Sales Tax
Shipping and handling \$3
If COD add \$3
Send cheque or money order
(Sorry, no credit cards)



Software now available for the Osborne 1™

Forth™

Forth is a high-level computer language in which the Osborne user can use the vocabulary provided, or extend it with his own words for your specific applications. Writing and editing with Forth is easy using the completely interactive screen editor. This language is ideal for controlling peripheral devices such as printers, cameras, timers and laboratory devices. Forth has been used to write data base programs and other programs for general business. (*The Software Works Inc.™*)

Personal PEARL™

The easy way to create custom application programs through English language interaction with your Osborne computer. Personal PEARL asks you for examples of the results you require and then produces an applications program to provide them. For the individual who requires custom computer solutions without the cost and time delay of hiring a programmer. A flexible report generation facility is built into Personal PEARL. (*Relational Systems International®*)

Personal Datebook™

This popular program handles a calendar and appointment schedules for two people or offices (using Osborne 1 single density), keeping an accurate and complete schedule for the busy executive or professional. Personal Datebook saves frustration when trying to find a convenient time for a staff conference—it automatically finds a time when all staff members are available. A valuable tool for time management, Personal Datebook keeps a permanent record of each day's activities and provides print-out functions for future reference. (*Organic Software®, Digital Marketing™*)

DataStar™

DataStar is an easy-to-learn, versatile and comprehensive data entry program, retrieval and update system for your Osborne. DataStar handles recordkeeping applications from initial form design through updating, addition/deletion, and search/ retrieval of records. DataStar is designed to support speed and accuracy, allowing fast typists to operate at their best rate. The programs comprehensive HELP messages and instructions also provide the assistance the inexperienced user needs. (*MicroPro™*)

Disk Doctor™

This program reclaims damaged diskettes and allows you to recreate accidentally erased files. Disk Doctor helps the Osborne user to restore damaged or faulty diskettes to a usable condition, recovering as much data as it can. As an added benefit, Disk Doctor can also be used to certify new diskettes and eliminate any bad sectors before they can cause problems. (*SuperSoft™*)

Footnote™

Footnote numbers and formats footnote calls and the actual words in WordStar text files. Footnote numbers notes consecutively, and formats the file, placing the notes at the bottom of the appropriate page, or, at the user's option, moving them out of the text to a separate footnote file. (*Pro/Tem Software, Inc.™*)

Milestone™

Milestone is used for planning priority scheduling and tracking of small projects on your Osborne computer. Milestone creates Gant project charts and can be configured to find the critical path of a project. Two kinds of users will find Milestone helpful: project planners who are not yet using computers as planning tools, and planners who are disenchanted with their powerful project planning systems on minis or large frames. (*Organic Software®*)

Enumerator™

Enumerator adds variable line numbering abilities to documents created by WordStar. Enumerator allows you to number by line in any sequential pattern (ideal for attorneys, text writers and BASIC program writers). (*The Orthocode Corporation™*)

dBASE II™

dBASE II is a powerful, easy-to-use data management tool for constructing and manipulating numeric and character information files. A special feature of dBASE II is its own English-style program-building-language. You may SORT, EDIT, or DISPLAY a database directly from the keyboard, or write menus and programs to support your specific applications. (*Ashton-Tate, Inc.™*)

System Checker™

A very simple verification program which allows the Osborne owner to have confidence in operation of his computer. A comprehensive series of tests analyze memory, disk drives, visual display, CPU and printer. Each test shows an easy to understand pass/fail response. A manual helps the user to understand what each option tests, and what the responses mean in easy-to-understand terms with no computer jargon. (*Supersoft™*)

SuperSort™

Allows the Osborne user to perform sorting, merging, and record-selection functions on data files. SuperSort is compatible with BASIC, Fortran, Cobol and assembler applications programs, and can also be used with mail lists maintained with Mailman™ and WordStar. Sorts up to 32 files into a single output file, automatically using external merge as necessary, depending upon the amount of data and memory available. (*MicroPro™*)

Grammatik™

Grammatik provides the Osborne user with a unique program that analyzes written styles at both the word and the sentence level. This document-checking system checks for two sources of potential problems; style and typographical errors. Style analysis includes checks for specific phrases commonly recognized as being poor or wordy usage, as well as compiling statistics about word and sentence length. Typographical checking detects a number of errors such as: double words, capitalization at the beginning of sentences, and inconsistent and punctuation marks. (*Aspen Software Company™*)

Money Maestro™

Money Maestro is designed to provide financial recordkeeping, tax reporting and budgeting for professionals, clubs, families and very small businesses. Those who recognize the benefits of accurate records, but don't require full-blown double-entry accounting systems, will find Money Maestro to be the fast, simple and complete money management package they seek. (*Innosys, Inc.™*)

Microsoft® Basic Compiler

Allows Osborne users to compile their MBasic interpretive programs into true Z80 machine code. The Basic Compiler provides you with three major benefits: 1) increased speed of execution for most programs; 2) decreased program size for extremely large programs, and 3) source code security. When you distribute a compiled program, you distribute optimized machine code, not source code. Consequently, you distribute your program in very compact form and protect your source program from unauthorized alteration. The package also included a relocatable Z80/8080 assembler for use under CP/M. (*Microsoft™*)

Mailman™

Mailman creates and manages your mailing list. Formatted screen entry with eight different selecting criteria gives the Osborne user ease of access and entry, along with discrete listing capabilities. In addition, the program automatically sorts data by zip code and name. Mailman is designed to work with WordStar and MailMerge®. (*Standard Microsystems™*)

BSTAM™

BSTAM is a telecommunications program that allows the Osborne user to send and receive any CP/M file with complete error checking. The BSTAM documentation gives the user a comprehensive overview of types of channels, modes of transmission, sending and receiving any CP/M file. A copy of BSTAM is required on both systems involved in the communication. (*Byrom Software™*)

Real Estate Investor Calc-aid™

A SuperCalc™ overlay designed for both the real estate professional and the potential home-buyer or seller. Using SuperCalc's "What-if" capabilities, comparative analysis of the complex factors involved with real estate investment can be performed swiftly. Models are supplied for individual residence or income property analysis. (*SimpleSoft™*)

Documate/Plus™

This is an indexing program that works with WordStar to create an automatic text index or table of contents. Documate/Plus supports up to 8 levels of sub-indexing, and you can choose to index either words or phrases. (*The Orthocode Corporation™*)

Spellguard™

Spellguard is a computer program that helps the user to eliminate spelling and typographical errors in written materials prepared with WordStar. Two dictionaries are supplied with Spellguard: the first consists of 20,000 of the most frequently used words in the English language and the second contains 10,000 words and can be easily expanded to include technical vocabulary and/or foreign languages. (*Sorcim™*)

muMATH-80™

muMATH-80 is a fully interactive Symbolic Math System that efficiently and accurately performs true algebraic and analytic operations. muMATH can evaluate and simplify expressions containing variables that have not been assigned numeric values. The muSIMP-80™ programming language is provided with this package to extend muMATH or to implement other Artificial Intelligence applications. However, most Osborne users will find muMATH sufficiently powerful to handle the majority of their mathematical problems. (*The Soft Warehouse™*)

Math*™

This program interacts with WordStar to add basic math capability to your Osborne computer. Math* performs addition, subtraction, multiplication and division. Within your WordStar document, Math* allows you to perform math functions in either rows or columns. (*Force Two®*)

These software packages are now available at your local authorized Osborne dealer.

new Products

Getting the Word Out

A new public telecommunications system developed by Graphnet Incorporated promises to permit Osborne users to send messages to Telex, TWX, word processors, computers and dataphones at savings of up to 30 percent over Western Union rates. Called the **Freedom Network**, the new system ties together 140,000 domestic TWX and approximately half a million international Telex terminals.

Multiple addressing, peak load control, message accountability and archival storage can be handled using the Freedom Network's advanced store and forward capability. A single message can be sent to hundreds of addresses. The store and forward system routes the message to each address automatically. The user can instruct the system to insert names in the message and can use edit and forms functions to change dollar figures and add or subtract words, sentences or paragraphs.

Service costs, over and above transmission time, run about \$5 a month. Transmission costs for

domestic messages are advertised as roughly 30-cents per 100 words.

Graphnet, Inc.
8230 Boone Blvd. #330
Vienna, Va 22180
800-336-3729

Have Ozguard, Will Travel

A new waterproof carrying case from Westwind provides protection for the Osborne from weather, dirt and envious eyes. The case—appropriately designated the **Ozguard**—fully covers the entire Osborne, with a heavy duty double YKK zipper around three sides of the computer's widest circumference. The Osborne's handle fits through a webbing lined slot at the top of the case.

The case fits both new and old models and weighs just 15 ounces. Three large pockets with velcro closures accommodate the Osborne Manual, modem, diskettes, cables, line filters and other miscellaneous items.

The Ozguard may be purchased by mail for \$60. It's also available at local computer stores.

Westwind
484 Lake Park Avenue #141
Oakland, California 94610

RB: Phone Home

Out of Golden, Colorado—a city best known for its amber libations—comes word of a robot programmable by home computer. Dubbed **RB5X** by the RB Robot Corporation, the robot is described as “a starter system for technically-oriented people to investigate personally the potential of robotics.”

The robot's standard RS-232 interface makes it compatible with a wide array of microcomputers to allow for program entry and data transfer. RB5X is smart—8K worth (with 16K add-on capacity)—and is cleverly painted blue and gray to color-coordinate with your Osborne.

RB5X learns from experience, its manufacturer claims. With its own microprocessor, memory, programs and tactile sensors, the robot detects

COMPUTER CANNERY

GAMES

Play championship chess with full graphics

Now you have the opportunity to own a true world class micro chess program with full graphics. MYCHESS, best micro in the 1979 ACM North American Computer Chess Championship, and winner of the 1980 West Coast Computer Faire over such opponents as Sargon 2.5 and Atari, is now available for your computer. Nine skill levels tailor MYCHESS to any opponent. Plays varying openings from a “book” of over 850 moves. By Dave Kittinger, Requires Osborne

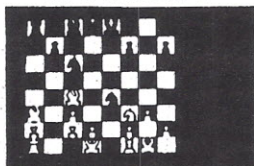
MYCHESS \$34.95

Action Video Game SOFTWARE

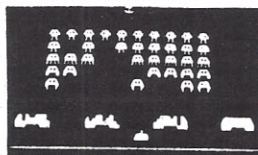
From

The Software Toolworks

MYCHESS



INVADERS

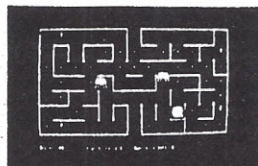


Play the INVADERS video action game

Though your computer couldn't do this? Think again. Your screen becomes a fast-action video game. Alien creatures try to land; you hold them off with your space cannon as you dodge their bombs. Play it as it comes, or customize with 23 user-variable parameters to increase the challenge:

INVADERS \$19.95

MUNCHKIN



Action maze game with arcade excitement

You run through a maze, evading creatures which try to gobble you up. But turn the tables by reaching a force point, and you're energized to catch and destroy the baddies. Vary the skill level with user alterable parameters;

MUNCHKIN \$19.95

TO ORDER: Send check or money order to:

(add \$1.50 shipping/handling charges — California residents add appropriate sales taxes)

COMPUTER CANNERY — P. O. Box 23425 • San Jose, CA 95153 • (408) 226-3184



and responds to objects in its path. Once a successful random response is achieved, the RB5X remembers its actions and repeats the correct response when confronted again with the same situation.

The basic RB5X unit sells for \$1195. A special option package with additional memory, a Polaroid Rangefinder, sonar sensor and a pulsating light option is also available for \$295.

RB Robot Corporation
14618 West 6th Avenue, Suite 201
Golden, Colorado 80401

New Product information is derived from press releases sent to The Portable Companion by the producing companies. Statements of fact or opinion expressed in the New Product announcements that appear in this magazine are those of the producing company and have not been checked for accuracy by Osborne Computer Corporation. Before purchasing any of the products listed in this section, you are advised to check the validity of all claims made for the product.

WANTED - SOFTWARE TESTERS

Osborne Computer Corp. is looking for Osborne 1 owners who will test the software packages we are evaluating for addition to our Approved Software list. We are committed to publishing only the best business and personal software. You will be learning and testing the latest software and documentation that we have reviewed.

To qualify, provide us with your name, address, business expertise, the types of software of interest to you, what software you currently use, and your level of experience with computers. Also tell us whether you have double-density disk drives or 80-column screen upgrade on your Osborne 1.

OSBORNE COMPUTER CORP.

BETA TESTING

31285 SAN LUIS OBISPO
UNION CITY, CA 94587

Larger Screen for Osborne™

New Easy-View magnifying system is fully portable and stores inside the Osborne case without using any diskette storage space.

- Larger screen size eliminates eye strain and errors
- Finest optics of high-grade acrylic by world leader Bausch & Lomb
- Light weight and scratch resistant
- Fully adjustable, up, down, left, right
- Sturdy anodized aluminum bracket mounts instantly with "velcro" type fastener
- No flimsy wires to align or accidentally knock down
- Satisfaction guaranteed or your money back
- Full one year warranty and shipping cost included in price



If you have an Osborne, you need Easy-View.

Now only \$29.95

- ☐ VISA ☐ MasterCharge ☐ Check enclosed
☐ or send for free brochure

P.O. Box 20595, Portland, Oregon 97220 (503) 256-4244 ext. 4

STATISTICS

For the Osborne 1™

The GUYL STATPAK was developed for, and is presently in use at a major California State University. The programs have been adapted for use on microcomputers by their author, a prominent statistician and educator.

29 USER-FRIENDLY PROGRAMS are included, along with complete documentation including instructions for transformations and re-dimensioning. Descriptions and applications for all programs are included.

- Analyses of Variance (6)
- Follow-up Parametric Analyses (7)
- Non-parametric Analyses (7)
- Correlation (2)
- Multi-variate (3)
- Ancillary (incl. graph/histogram) (4)

This is a user-friendly, user modifiable, complete statistical analysis package written in MBASIC. (TM)

Also available for TRS-80 (TM) (I & III) and Apple II

INTRODUCTORY OFFER

Send **\$129** (reg \$179)

(CA residents add 6% tax) in money order or certified check for fastest delivery. Personal check, VISA or MasterCard orders (need exp. date of card) orders take slightly longer.

MICRO/RESEARCH

P.O. Box 70 Forest Ranch, CA 95942

MBASIC is a trademark of Microsoft Corp., TRS-80 is a trademark of Tandy Corp., Apple II is a trademark of Apple Computer Corp., Osborne 1 is a trademark of Osborne Computer Corp.

Dealer
Inquiries
Invited

ACCOUNTING FOR THE OSBORNE

GENERAL LEDGER \$100
Allows up to 200 accounts and 400 transactions/mo (per disk). Keeps and displays concisely mo/end balances for Last Year, This Year and Forecast. Transactions and Adjusting Journal Entries cannot be entered without being in balance. Reports include Balance Sheet, Income Statement, Annual Summary of Last Yr, This Yr, Forecast and Journal Report (provides an audit trail).

ACCOUNTS PAYABLE \$100
Allows up to 400 Invoices and 200 Vendors. Records invoices and hand-written checks. Writes computer checks for payables or any other purpose. Allows partial payment of invoices. Check printout format can be changed to use most computer checks. New vendor name and address are easily entered when invoice is entered.

ACCTS RECEIVABLE \$100
Allows up to 400 Invoices and 200 Customers. Invoices can be entered directly or transferred from Inventory Module automatically. Customer name and address file is indexed for quick access and easy review. Statements can be printed at any time. Partial payments possible.

INVENTORY \$100
Allows up to 600 parts. Calculates shipping costs. Keeps 12 month history of unit sales as well as year to date. Invoicing section can be used as point of sale (prints invoices, handles cash, prints daily summary of activity and cash received.) Reports include Inventory Value and Status, Sales History, Price List, Daily Summary/Monthly Summary.

FREE INFORMATION AVAILABLE
All programs will run on the Osborne. They are menu-driven with very good on-screen instructions. Disks can be copied for back-up.

ORDERING: Please send check or money order with your order. Price includes shipping (MN residents add 5% sales tax). Your order will be shipped to you by return mail.
SAMPLE DISK: \$15.00 Postage paid. Demonstrates program operation, prints reports.

DEALER/REP INQUIRIES WELCOME

IRONWOOD

115 N. First St., Minneapolis, MN 55401
(612)-339-2520

the Processed Word

Teach your dot matrix printer to tap dance

Barbara Elman

With printer technology improving as fast as computers themselves, many Osborne owners have postponed investing in "letter quality" printers and happily produce correspondence, reports and articles with affordable dot matrix. I too chose an Epson dot matrix printer to match my budget, knowing even as I unpacked my Osborne that I would eventually need to produce pages with a more "professional" look. Not ready to interface with typeset for each issue of *Word Processing Newsletter*, I had an alternative: borrow a daisywheel printer from a friend for camera-ready copy.

One month this was not possible and my next issue was ready to print. I was stumped. The Epson was performing brilliantly on letters and labels, but I wanted more than dots for the newsletter. Since I had just installed *Graftrax-Plus*, (a great achievement, since I am no technician and practically yanked the original EPROM out of its housing), I knew the Epson could do some fancy dancing—given the right software instructions.

I recalled some articles I'd seen on this and pulled the premiere issue of *The Portable Companion* and the November 1982 issue of *Interface Age* off the shelf. I found an article in each about "patching" *WordStar* to take advantage of the Epson's capabilities. Compressed, expanded and emphasized modes, subscript and superscript were almost at my finger-

tips. But what I really wanted was to get an *italic phrase* in the middle of a sentence—without the inconvenience of changing printwheels, as on daisy-wheel printers. I knew there must be a way and scanned the Epson manual for clues.

Appendix B listed "control codes," and midpage I found the codes that toggle italics. Maybe if I substituted those hex codes for some of the patches described in my mini-guides it would do the trick. I followed both Jim Woolley's and George Milburn's instructions, not at all sure about the results. After reconfiguring the now-patched *WordStar*, I coded a document, printed it, and voila! Compressed came out normal, emphasized mode printed three separate lines instead of three times on one line, italics came out bold, double-width was single. Something was drastically wrong.

HexPrintR

In *The Portable Companion*, however, was an ad for *HexPrintR* software, displaying a cut dot matrix smile face. My face was far from smiling, and since the ad claimed *WordStar* could perform magic with my printer, I called Tom Vyse of C.I. Software (1380 Garnet Ave, Suite E149, San Diego, Ca 92109) for help. I learned C.I. not only publishes software that draws smile faces and other graphic goodies, but could also custom install the *WordStar* patches I needed, along with several I wanted

in other key codes (like *italics*). The software could be customized for my Epson with *Grafrax Plus*, producing continuous underline (without skipping spaces between words), compressed super and subscripts, and attractive combinations of emphasized, double-density, double-width, condensed and italicized print—for a reasonable \$65. I ordered the whole package straight away.

“I knew the Epson could do some fancy dancing—given the right software instructions.”

Tom also explained that C.I. custom installs *WordStar* for other printers, including Brother, Comrex, C. Itoh, NEC and Okidata, maximizing their capabilities. For C. Itoh and NEC printers he features software that mixes Greek symbols, block graphics, playing card symbols (hearts, diamonds, etc) and other features with automatic paragraph reform, so that right margin justification isn't altered by these special functions (as it often is with user-installed patches). *HexPrintR* supercharges C.I.'s custom *WordStar* to produce special characters, graph and box drawings, and set tabs via the printer instead of *WordStar*. This last feature is useful to print file copies of mailing lists. By merging the list with a document containing the *HexPrintR* selected tab set-up, each record will be separated at the printer by properly spaced tabs, for easy reading on paper.

When I asked Tom whether users like myself could do this fancy patching without software like his, he conceded they could—with at least a year of assembly language program training and lots of trial and error. Having

failed once in patching *WordStar* myself I admitted I'd rather pay for assistance and avoid the agony—and wasted time—of tackling it again. This may not be the case for computerists who like to program, but it's the best choice for writers like me with no patience for technical details.

Fancy Font

Later that day I found another way to transform the Epson into the printer of my dreams. SoftCraft (8726 S. Sepulveda Bl, Suite 1641, Los Angeles CA 90045) publishes the *Fancy Font* software system, which helps Epson printers surpass even daisywheels (in my opinion) and come as close to typeset as possible for \$180. Originally developed on an Osborne 1, it works on other computers as well. An excited phone call elicited a package containing six diskettes in a nicely bound manual and I was printing again.

Having learned about interfacing word processor to typeset for a previous article, I was familiar with the differences between these methods of computerizing words onto paper. Word processing lets the author see on-screen pretty much what is going to be printed (depending on the word processing program used), with tabs, paragraph endings, centering, even right margin justification. Sometimes codes are imbedded within text for special print functions, as in *WordStar*. Typeset, on the other hand, is input differently than word-processed text, with lots of imbedded codes for type size or font changes, paragraph endings, tab stops and centered headings. Typefaces are switched during printout and loaded online before printing. The text itself is input flush left even if indented, tabbed or centered on print-out.

So *Fancy Font* is actually a print program that treats word processed text as if it were being typeset (in this case, played out via Epson printer). It tells the Epson how to “paint” each character dot by dot, producing final

typesetting typesetting typesetting typesetting with your OSBORNE 1™

Now you can set crisp, beautiful type like this with your OSBORNE 1!™ Simply send us your WORDSTAR® discs or transfer your text to THE SOURCE, and our computers do the rest.

We'll then send your completed type and your discs back to you by return mail.

You can mix styles and sizes in one document simply by using familiar Wordstar® commands.

Our service is excellent for those who wish to save time and money by typesetting their own materials. And your type is accurate because you do the typing.

Send today for your FREE information packet which includes the booklet “Typesetting with Your Osborne 1!™”, a Typestyle Poster, and a sample of our typesetting.

D&M type
P.O. Box 541
San Luis Obispo, CA 93406
since 1975
(805) 543-9363

the friendliest cat around

BOBCAT

only \$25.00

the MASTER DISK CATALOG program for CP/M File names

- creates, adds, updates, and deletes a filename catalog
- provides four report formats and three search routines
- numbers disks and provides titling in catalog
- prints disk contents for disk jacket
- 24 (22 OSBORNE) page MICROGUIDE™ documentation
- 8" CP/M SSSD
- OSBORNE for single or double density
- 94K (78K OSBORNE) of really friendly compiled PL/I

REQUIREMENTS - CP/M 1.4 and up
- 56K and up memory
- two or more drives

U.S. residents \$25.00 U.S.
Canadian residents \$25.00 Cdn (Ont. residents add \$1.75 pst)
Other countries \$30.00 U.S.
all post paid



NAME, NUMBER, EXP DATE
(MC FOUR EXTRA DIGITS)

Bank drafts, cert. checks, money orders, no personal checks please

R&L Micro Consulting Services

6 Lipstan Ave.

Nepean, Ont.

K2E 5Z3

(613) 225-7904



THE HOME OF THE BOBCAT

*MICROGUIDE is a tm of R & L Micro Consult Svcs. CP/M is a tm of Digital Research. OSBORNE is a tm of Osborne Computer Corp

MARKET MAESTRO

Software based on a proven technical system for stock selection and timing. Runs exclusively on the Osborne 1™. Gives buy and sell signals for any stocks you wish to track. Works in both bull and bear markets. Stock price data may be entered manually or downloaded from a central computer using a modem.

\$125 (may be tax deductible) for program and documentation.

To obtain a descriptive brochure call or write to:

AJH Systems Inc.
3032 S. Saulsbury St.
Denver, CO 80227
(303) 985-9062

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

OZGUARD



BY **WESTWIND**
PATENT PENDING

**WATERPROOF
WASHABLE**

\$60 BLUE
BROWN
BEIGE

3 LARGE POCKETS FOR:
— MANUAL
— MODEM
— MISC

WESTWIND
484 Lakepark Ave., No. 141
Oakland, CA 94610
(415) 839-7169
(DEALER INQUIRIES WELCOME)

the Processed Word

copy which only looks dot matrix on close inspection, and gets even darker if reduced by Xerox or printed. Since I print my newsletter by offset from camera-ready layout it seemed ideal.

To accomplish this rather impressive feat, the Epson print head passes over each character at least six times, moving the paper as little as 216th of an inch between each pass. Two speeds of fast rough draft are possible. (I printed only three single-spaced two-column pages of final copy an hour—but was it gorgeous!)

So far, the creators of *Fancy Font* have only customized it for Epson printers, but are working with other brands whose capabilities meet the program's parameters. (To learn whether your printer can use *Fancy Font*, please contact SoftCraft directly.)

The *Fancy Font* package consists of three distinct parts. The most useful is Pfont, which formats the text during printing (used in place of the *WordStar* print function). It includes a Roman, Sans-Serif, Script, and even an Olde English typeface, as well as bold and italic version. Each font has a type point range from eight up to (in some cases) 40 point.

NOTE: "Point" is different than typewriter "pitch." Pitch means number of letters per inch—10 or 12 is standard on a Selectric, with equal distance between each letter. Proportional pitch means the distance between each letter is proportionally based on the width of that letter—with fat "m" taking more space than skinny "l". Point, however, includes the letter's height as well as the width and distance from other letters; one point being 1/72nd of an inch. Most books and magazines are printed in 8 to 12 points, with headings from 18 to 40 point. Write for the *Fancy Font* brochure to see samples of all type styles and sizes available.

The second part of the package is Efont, which allows you to edit individual characters, create logos or new characters using a text editor,

and install them into new or existing font sets. Being able to change right and left margins of individual characters (number of blank dot positions beside each letter) was essential to edit the Sans-Serif font, which I found had too little space between the skinny letters ("l," "j" and "i") and their neighbors. The period on small fonts (a single dot) could barely be seen when my pages were offset printed, so I made it larger and darker via Efont.

**"Fancy Font is
actually a print
program that treats
word processed text
as if it were being
typeset."**

The third component is Cfont—a font creation program that uses the Hershey character database created by Alan V. Hershey for the National Bureau of Standards. It contains over 1600 characters; several capital and lower case typefaces other than those in Pfont; standard numbers and symbols; Greek characters, music symbols, special numerals and brackets; foreign language symbols, arrows in all directions, playing card symbols, block graphics and curves, and even five-point stars, anchors, half-moons, Jewish stars, bells, palm trees and circles of many sizes.

Cfont lets you pick individual characters (such as the heart symbol) and assign it a font name (such as "heart.fon") and a keyboard generation symbol (such as the letter "h"). You then load "heart.fon" as a font when you print your text with Pfont, assigning it a number to correspond to the font change codes (specified as "\f1," "\f2," etc.) you've already imbedded in your text. When the

print program sees “\f1h” in the text, the next character will be the heart.

I learned *Fancy Font* in a rush, and became proficient enough within three days to get out a 16-page newsletter using many of Pfont's typesyles. Several phone calls to SoftCraft answered my questions, and imbedding the *Fancy Font* codes within text while composing became as automatic as using *WordStar* commands by the end of the week.

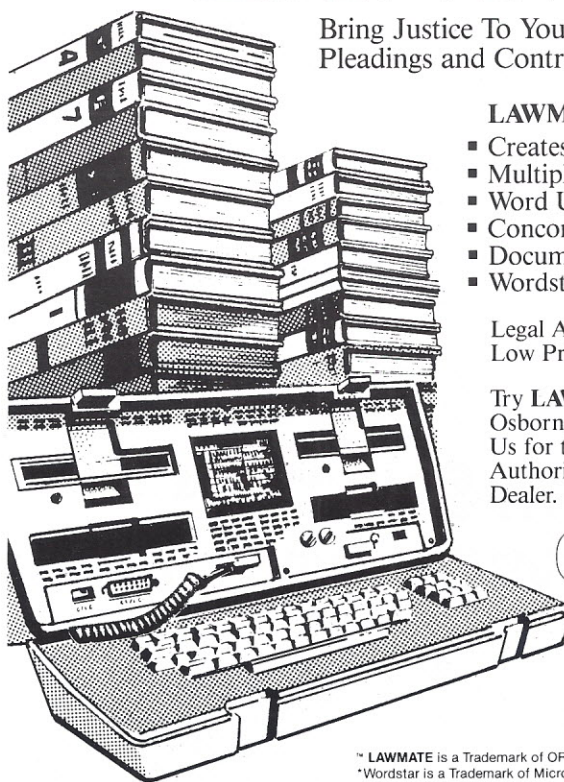
I even found some shortcuts the designers hadn't thought of, like configuring the Osborne number keys especially for *Fancy Font* on one *WordStar* working diskette. I input “\f0,” “\f1” or “\f2” in separate keys for font change indications and “\b<cr>\t” to end a paragraph without justifying the last line and tab in the next in one keystroke. I then configured a Pfont working diskette with my standard print parameters (line length, page length, indent from left edge of page, top and bottom page margins, etc.) in 0, Pfont start-up in 1, and the names of the fonts I used most frequently in other keys for loading before printing.

If my print specifications were standard for each document, I could program the whole string into one key. This cut my effort in half. The SoftCraft people have even set up parameter documents that contain their print specs to run with text documents (you can load more than one document at a time and chain print them). Also, I printed lots of fast rough drafts before I reached final copy.

A few points to remember when working with *Fancy Font*, *HexPrintR*, Custom Installed *WordStar* or other programs—make back-up copies of each program diskette, especially if keys are custom configured, and SYSGEN each one. With *Fancy Font* PIP frequently-used fonts onto diskette for loading—each font with its variations comes on its own diskette

DUCES TECUM ☒ LAWMATE™

Bring Justice To Your Documents, Briefs, Pleadings and Contracts.



LAWMATE Features:

- Creates Table of Authorities Cited
- Multiple Document Indexes
- Word Use and Consistency Analysis
- Concordance Generation
- Document Line Numbering
- Wordstar* Compatible

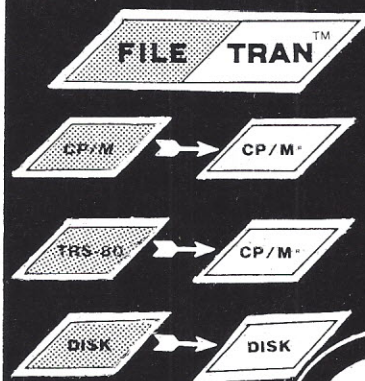
Legal Aid at an (Almost) Unlawfully Low Price.

Try LAWMATE at Your Local Osborne Computer Dealer, or Call Us for the Name of the Nearest Authorized ORTHOCODE Textware Dealer.

ORTHO CODE
The Textware Company

THE ORTHOCODE CORPORATION
P.O. Box 6191
Albany, CA 94706
(415) 753-3222

* LAWMATE is a Trademark of ORTHOCODE CORPORATION
* Wordstar is a Trademark of MicroPro International



FILETRAN™ operates on a single computer and file transfers are accomplished in seconds, not hours. A variety of other features are built into FILETRAN which complement and support file transfer operations. FILETRAN™ for the OSBORNE 1™ is the most exciting new system tool on the marketplace today!

only **\$99.**

DEALER
INQUIRIES
INVITED

See your local
Osborne dealer for
a demo or contact:

**BUSINESS
MICRO
PRODUCTS**

311½ 8th Street
Suite 400
Glenwood Springs, CO 81601
303-945-8166

Shipping \$3 USA/\$10 Foreign
COD add \$2.50. Colorado residents
3% sales tax, all prices subject to
change.



Format problem solver?
Increase productivity and
lower cost?
Larger choice of software?
Expand my marketplace?
Transfer from "alien" CP/M®
formats AND from TRS-80®?
Retain my old software?
No retype of text files?
All this WITHOUT tele-
communications equipment?
Now I can do this myself?
?s all "YES" with FILETRAN™


CP/M®, TRS-80® trademarks of Digital
Research. Tandy Corporation.

the Processed Word

to start. Also, decide before you compose or code your document which fonts you will use; code number them and list on paper in order of importance. You will later load them into the print parameters corresponding with code numbers, so forgetting which font was coded as #1 could cause delays. This is also helpful for reprinting later.

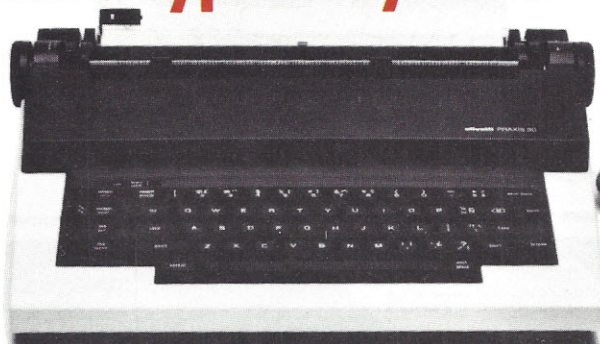
In working with *Fancy Font*, note that using boldface or italic fonts within a line may lengthen it past the right margin print parameter. This results in printed words being cut off, sometimes mid-letter. Pfont works line by line and does not move words up if a line is shorter in print than on the screen. Rough drafts, therefore, are helpful to make sure lines are not too long—or too short—which means re-editing the text to fill in the blanks yourself. This happens frequently because the proportional spacing adjusts the text differently than normal 12 pitch spacing on CRTs. Each point size is different as well. Some experimentation will teach you how many on-screen characters will fit your four-or-six inch printed line with few problems, but the manual gives suggestions for standard applications. Also, right margin justification works best on larger fonts, to avoid “rivers” of white space running through the paragraph. Ragged right margins are becoming popular in books and magazines these days, and after experimenting I will use this for my two-column newsletter pages, although justifying looks terrific on letters and proposals.

The *Fancy Font* manual is well written (and was of course printed using Pfont), but is oriented more for experienced computerists than novices. The index and introduction are good, and appendices in the back detail codes for easy reference. Soft-Craft is still small and personal enough that you can speak directly with the program designers and get fast answers, as is C.I. Software.

So my newsletter got in the mail on time and looked better than ever. I now use my custom-installed *Word-Star* for letters, articles, mailing lists and day-to-day writing; and *Fancy Font* for my newsletter, resumes, brochures, even ads and business cards. But now that my Epson can tap dance, I wonder if it can do somersaults? 

GIVE YOUR HOME COMPUTER A SECRETARY

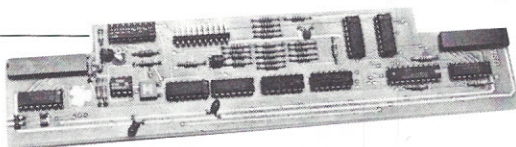
The New Selectone Micro-Typer™ System



SUGGESTED RETAIL PRICE ONLY **\$695**

- Two machines in one: a modern electronic typewriter and a letter quality computer printer
- Interfaces to most home computers to provide computer print-out and word processing capability
- Interconnects to either serial or parallel computer outputs with a low-cost cable adapter
- Offers Daisywheel flexibility with over 30 type faces available
- Fully portable, weighing only 21.4 pounds including rugged carrying case
- Compatible with Wordstar™ and most other word processing software.

MICRO-TYPE™
INTERFACE KIT
ONLY **\$195**



Upgrade your own Olivetti Praxis typewriter to a letter quality printer with the Micro-Type Interface Kit. Includes complete step-by-step instructions for easy home installation.

*Olivetti Praxis is a registered trademark of Olivetti Corp. Wordstar is a registered trademark of MicroPro International. Micro-Type and Micro-Typer are trademarks of Selectone Corp.

FOR FULL FACTS, CALL US TOLL FREE AT (800) 227-0376 . . .
Within California (800) 421-5389.

DEALER INQUIRIES INVITED

Selectone

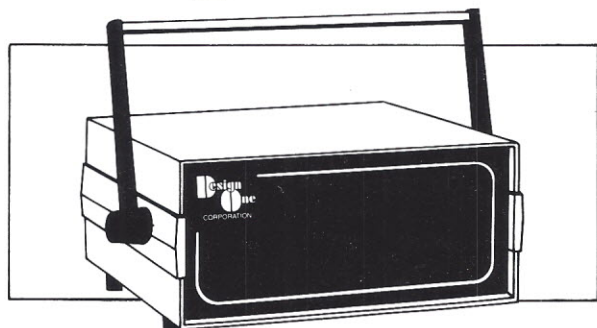
Selectone Corporation
Computer Products Division
28301 Industrial Blvd. • Hayward, CA 94545 • TWX 910-383-0709

Keep in Touch with your Companion

Let your Companion keep giving good advice on how to get the maximum from your Osborne. Save time by taking time to fill out the enclosed subscription card. Indicate your wish to renew and we'll deliver a Companion to your door every month. Don't miss an issue!

Now That's Companionship!

Turn your Osborne into a **SUPERCOMPUTER** with the **Design One Hard Disk Drive**



Give your Osborne the power and "I-O" speed to support your full creativity with the Design One Hard Disk Drive. Process words and data more rapidly than any similar disk on the market, with greater convenience and reliability. **Call for a catalog of other fine Supercomputer products.**

- **Portable** Winchester hard disk
- **Protects your data**
- **Fastest available**
- **Available in 10 and 20 MB and 10/5 and 20/5 MB fixed/removable, all at discount prices**

Call 202-775-8400

Satisfaction guaranteed by

ProMicro, Inc.

Professional MicroSystems for Supercomputing

Suite 1000

1100 17th Street, NW

Washington, DC 20036

CalcAids

Loading part of a SuperCalc file

Walter B. Novinger

I recently watched a friend laboriously transfer values from one month's *SuperCalc* spreadsheet to the next, and realized that there was a better, less error-prone way to accomplish the task. The intention was to copy totals from one month's calculations to the "brought forward" column on the following month's spreadsheet. This article will describe a simple procedure to (almost) automate the process.

After entering the simplified spreadsheet shown in Figure 1, save it as file **TEMPLATE**. Using the **Replicate** command will save inputting all but two of the formulas. Also, use the **/Format,Global,\$** command to round the numbers off to two decimal place accuracy. (Save the template without the formulas visible—I used the **/Global,Formula**

command to toggle them ON or OFF for display and entry purposes only.)

Column **E** is the month-to-month accumulator, set off from the rest of the spreadsheet for convenience and readability. Note that each row in column **E** merely copies the value in the same row in column **C**. This may seem wasteful; we'll look at how this can be eliminated later.

To begin the first month's spreadsheet, January in our example, get into *SuperCalc* and load the **TEMPLATE** file. Then, position to cell **B1** and enter the month. Now, enter the test data shown in column **B** of Figure 2. As this is being done, note that column **E** duplicates the totals shown in column **C**. Save this spreadsheet naming it **JANUARY**.

Now, to start February's sheet, Zap the worksheet and load **TEMPLATE** again. We now want to load the values from **E6:E17** of file **JANUARY** into cells **A6:A17** in the current worksheet. To do this we'll use the **Part** option of the **Load** command.

Type the command shown in the box below.

/LJANUARY,P,E6:E17,A6,V

- values only
- Type in this comma!
- TO cell
- FROM range in input file
- load only PART of input file
- input file from which to load values

Write your own software library.

Now there's no need to spend money on an extensive program library for your personal computer. You can do it yourself with Personal Pearl.

There's no complicated programming language to learn and no jargon to memorize. Pearl speaks plain English, which means you have instant program-ability.

All you need to make use of Personal Pearl is a 56K RAM microcomputer with CP/M operating system. Now there is no limit to the programs you can create. The amount of record storage space and maximum file size are determined only by your computer's disk capacity.

Here's how you do it.

To write a program with Personal Pearl, use the screen like a piece of paper in the typewriter. Pearl's powerful Program Generator allows you to type exactly what you want your computer to respond to, in the way that feels comfortable to you. This personal link with the entire program enables you to solve even the most complex problems easily.

Personal Pearl also functions as a Forms and Reports Generator, so documents come out looking just the way you want them. You can modify formats, add reports, change displays or update information at any time. In addition, Pearl's Data Base Manager helps you sort, search, reorganize and analyze as quick as a flash!

Use it to customize the software you already have.

Pearl can be used interactively with your existing spreadsheet or word processing programs. You can transfer information from Pearl to those programs to suit your particular needs.

The Personal Information System™

personal pearl™

Relational Systems International Corp.
P.O. Box 13850 • Salem OR 97309
503-363-8929

You will see that cells **A6:A17** now contain the values from the prior month's calculations. This is certainly easier and safer than manually transferring the data.

When the current month's data have been entered as shown in Figure 3, simply save the file and you're finished.

Final Notes

As you may have guessed, we could (in this simple example, anyway) omit column E and simply copy the values from column C of the prior month's file into column A of the current month's sheet. The command to do this would be:

/Lfilename,P,C6:C17,A6,V

I chose to use the extra column in this example to make you aware that an "accumulator" column *can* be used. The contents of this column could be gathered from several areas of the spreadsheet and centralized into one column for convenience. Of course, the distribution of the new values to the next spreadsheet would be considerably more complicated.

To make life easier, the function key capability of the Osborne 1 can be used to place the more complicated commands (using the SETUP program) into one of the numeric keys. For instance, the following sequences might prove handy for our example:

~1 /LTEMPLATE,A
~2 ,P,E6:E17,A6,V
(type /Lfilename then ~2 finish)

	A	B	C	D	E
1:MONTH:					
2:					
3:BROUGHT	CURRENT	TOTAL		M-T-M	
4:FORWARD	EXPENSES	EXPENSES		ACCUM.	
5:=====					
6:		A6+B6		C6	
7:		A7+B7		C7	
8:		A8+B8		C8	
9:		A9+B9		C9	
10:		A10+B10		C10	
11:		A11+B11		C11	
12:		A12+B12		C12	
13:		A13+B13		C13	
14:		A14+B14		C14	
15:		A15+B15		C15	

Figure 1
File TEMPLATE

	A	B	C	D	E
1:MONTH:	JANUARY 1983				
2:					
3:BROUGHT	CURRENT	TOTAL		M-T-M	
4:FORWARD	EXPENSES	EXPENSES		ACCUM.	
5:=====					
6:	125.45	125.45		125.45	
7:	75.00	75.00		75.00	
8:	986.67	986.67		986.67	
9:	45000.00	45000.00		45000.00	
10:	34.23	34.23		34.23	
11:	1795.00	1795.00		1795.00	
12:	162.60	162.60		162.60	
13:	.00	.00		.00	
14:	2406.95	2406.95		2406.95	
15:	1100.00	1100.00		1100.00	

Figure 2
File JANUARY

	A	B	C	D	E
1:MONTH:	FEBRUARY 1983				
2:					
3:BROUGHT	CURRENT	TOTAL		M-T-M	
4:FORWARD	EXPENSES	EXPENSES		ACCUM.	
5:=====					
6:	125.45	200.00	325.45	325.45	
7:	75.00	25.00	100.00	100.00	
8:	986.67	605.25	1591.92	1591.92	
9:	45000.00	8000.00	53000.00	53000.00	
10:	34.23	89.70	123.93	123.93	
11:	1795.00	.00	1795.00	1795.00	
12:	162.60	.00	162.60	162.60	
13:	.00	100.00	100.00	100.00	
14:	2406.95	1355.72	3762.67	3762.67	
15:	1100.00	90.00	1190.00	1190.00	

Figure 3
File FEBRUARY

OSBORNE I™ ↔ MX-80
PARALLEL
PRINTER CABLES
\$35

Connects Osborne 1
 IEEE Port to MX-80/Centronics
 type parallel printers.

Order part no. 0-1—\$35

- FREE SHIPPING
- 10 DAY FREE TRIAL
- CUSTOM LENGTHS AVAILABLE

Visa & Mastercard
 Texas residents add 5% tax.
 C.O.D. add \$2.

AUSTIN COMPUTER
TECHNOLOGIES

Dept. O, P.O. Box 26595
 Austin, TX 78755
 (512) 835-6136

SURVEYORS
 do it
 in the field

with a portable Osborne 1™
 and DISCO-TECH software.

Civil and structural engineers and architects, too. DISCO-TECH's SURVEY 80 package contains eight professional programs for both field and office: CoGo, FiNDeR, EDM/Topo, Verti-Curve, PLOTTER, Horizontal Curve Staking, STADIA, and MapCheck. Excellent screen format and easy-to-follow documentation.

Also civil and structural engineering programs and DISCO-SPECS specification-writing package.

Get SURVEY 80 for your 52-column Osborne 1 NOW! When the 80 column Osborne becomes available, we'll update your diskettes FREE.

Write or call DISCO-TECH today for free brochures and sample printouts.

disco
tech microcomputer
 products
 a division of
 Morton Technologies, Inc.
 600 B Street / P.O. Box 1659
 Santa Rosa, CA 95402
 707/523-1600 or 527-8500
 Dealer inquiries invited.

inside/outside Osborne

The business of cables and accessories

Kathleen J. Moon

It seems much longer than seven months ago that my friend Myron Eichen and I were discussing our personal computer systems and complaining about the poor quality, outrageous prices, and lack of information about interface cables for our printers. "Someone ought to take accessories as seriously as hardware and software manufacturers take their products," said Myron. "Why not us?" I suggested. Myron knew someone who was selling computers and we tried the idea out on him. His advice was, "If you're going to do it, do it right."

Now Myron and I had been in the electronics business for quite a while, but wanting another opinion, we shared our idea with our friend Ken Cook who had merchandising experience. Ken recommended that we "test the market." So we called a hundred computer stores across America and asked them if there was a market for interface cables. Their response was pretty specific. "Make a quality product, price it right, make it easy to do business with you, deliver our orders from stock, and we'd be interested."

With that challenge from a cross section of the market, Computer Accessories Corporation was born. We laid out a business plan and targeted Osborne, Apple, Xerox, and IBM to support with interface cabling to a broad assortment of printers. Then the hard work started.

After months of researching the I/O requirements of the computers and printers and finding sources for quality connectors and cable, we designed a catalog and devised a scheme to use international symbols for quick reference to the right cable for each combination. Computer Accessories Corporation was nearly ready for the market.

"A good cable is only half of what we need," noted Myron. So we wrote setup information for each combination so that the dealer or buyer wouldn't have to interpret the computer manual and printer manual instructions (when and if they were available). To find out if we had "done it right," an interview was arranged at Osborne Computer Corporation to preview Computer Accessories Corporation's approach. On a nervous August day, Computer Accessories' staff brought its concept of accessory support to Osborne's Hayward offices, hoping for positive criticism.

The response we received from the Osborne staff was more than we'd hoped for. We were encouraged, so we decided to break our catalog to Osborne dealers first. As word leaked out, requests came in to add other computer lines to the cable program. Computer dealers called with ideas for new products. Demonstrations of the Computer Accessories line to Computerland and the Xerox stores yielded enthusiasm, cable orders, and

more new products.

The excitement grew at Computer Accessories as we realized we successfully met the challenge given us by the marketplace. We developed a quality product that carries a five year warranty and this was made possible by careful attention to design, manufacturing and testing. We priced it right. Quality costs, but we find our cables cost less than products that are poorly designed. We've made it easy to do business with us. Our catalog offers easy cross referencing of cables, which makes it easier and faster to find what you need. Orders are shipped within 24 hours so the end user is not kept waiting. And most importantly, when technical assistance is needed, we're there to assist.

Back in May, Ken, Myron and I thought Computer Accessories might be a nice little "garage" operation in the finest entrepreneurial style. Our goals have been continually raised. Today, Computer Accessories' growing inside sales staff supports our expanding network of dealers with product and technical information and assists computer users in finding our products in their local area. Our technical design group continues to develop new products. In addition to the expanding cable line, we've developed a high resolution portable monitor line in amber and green screens, color coordinated to the Osborne computer; a power director for fingertip control of each element in the personal computer system; a video adapter for the Osborne 1; and translators allowing electronic typewriters to be utilized as letter quality printers.

We've learned a lot in these past months, but nothing more important than what we heard in the first week of listening to the marketplace: "Make a quality product, price it fairly, and above all do it right!"

Get the Most from your Printer & WordStar® with

Custom Installations

For C Itoh Prowriters, NEC PC8023, all Epsoms (specify if w/Grafrax), Okidata 82A & 83A, Comrex CR-1, and Brother HR-1. (Others available soon)

This service saves you hours of installation hair pulling by programming WordStar to give you easy access to virtually all of your printer's capabilities. (Send for details. SASE ensures quickest response)

You receive:

- ★ An explanation of the installation, hints, suggestions, and a summary of printer control codes
 - ★ Superscripting and Subscripting capabilities (except Okidata)
 - ★ A demo/test printout file
- \$25.00** Installed and delivered* (specify printer & options)

HexPrintR™

This program breaks through the Wordstar®/printer barrier by giving the printer code ^R the ability to send ANY character or code AT ALL to your printer, even 8 bit codes.

Need special characters like:

! @ # \$ % ^ & * ?

HexPrintR gives them to you if your printer has bit image graphics capabilities. Manual included.

\$39.00

Delivered

\$45.00

Installed and delivered*

Manual only: \$3. (applicable to order)

Together a **Custom Installation** and **HexPrintR™** give you one of the most refined and powerful sets of printer control codes available today.

\$55.00 Installed and delivered*

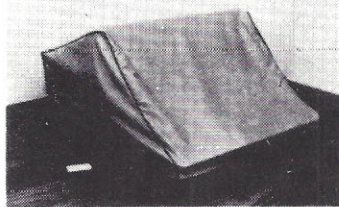


C.I. SOFTWARE & COMPUTER PRODUCTS

1380 Garnet Ave. - E149 - San Diego CA 92109 619/483-6384

*Include a copy of your WordStar® diskette with a piece of corrugated cardboard. HR-1, CR-1, and Okidata's do not need HexPrintR to gain full capabilities. WordStar® is a registered trademark of the Micro Pro Corporation. California residents add 6% sales tax.

When You Buy Quality . . .



Protect With Quality.

COMPARE THESE FEATURES:

- protects against dust, dirt and surface scratches.
- unlike vinyl, plastic or nylon covers, static electricity is not a problem.
- lint free, top quality broadcloth (65% polyester, 35% cotton) allows ventilation; minimizes risk of condensation.
- durable; washable — needs no ironing; maintains proper size and shape.
- designed, manufactured and packed in U.S.A.; comes with a warranty against defects in material and workmanship.
- available in Cranberry, Navy or Pewter (each piped in contrasting color) to compliment any decor.

AN IDEAL GIFT: HELP KEEP YOUR INVESTMENT LOOKING AND PERFORMING LIKE NEW!

— Custom Designers and Manufacturers of Computer Dust Covers —

Covers for other popular hardware available, visit your local computer store or contact us. *1982 B.L.&W.

SHIP TO: (PRINT) _____

City _____ State _____ Zip _____ Phone _____

Make _____ Model _____ Computers \$18.00 \$

Select Color: Navy ☐ Pewter ☐ Cranberry ☐ Printers \$16.00 \$

MONOGRAMMING: (Add \$6.00 per cover, and allow 5 extra days for delivery. We cannot accept returns on monogrammed items.) Disk Drive \$14.00 \$

Shipping \$ 1.00 \$

Send Check or Money Order to: PRINT INITIALS: ☐ ☐ ☐ Monogramming \$

B.L. & W. - PO Box 381076, (TN Residents add 6% sales tax) \$

Memphis, TN 38138 (901) 754-4465 (Foreign—Pay in U.S. Funds) TOTAL \$

KELLER CONSULTING CORP.

- SYSTEM DEFINITION
- CUSTOM HARDWARE
- CUSTOM SOFTWARE

T-PILOT

KCC's implementation of the popular instructional language PILOT provides the CP/M system programmer with an extremely versatile means of creating computer aided instructional programs. The simple syntax of T-PILOT provides an excellent introduction to elementary programming techniques to the novice as well as providing the experienced programmer with an easy means to construct interactive programs. T-PILOT's powerful string-matching feature allows for convenient programming of the "Question/Answer" type of instructional program. Also included are sample programs and a comprehensive documentation package.

KCC T-PILOT \$39.95

LUCIDATA PASCAL

POLYBYTES' versatile implementation of Lucidata's field-proven Pascal system provides the CP/M programmer with a powerful language system which is fully compatible with his/her current operating system. Pascal's data structures and programming constructs combined with Lucidata's 9-digit REALs, and extensions such as program chaining and random disk file access, give this system the sophistication to handle the most complex programming tasks.

LUCIDATA PASCAL VERSION 3.8, Reduced \$49.95

TOOLKIT #1

KCC's first in a series of CP/M utility program disks. Programs included are: BINHEX - a program that converts a binary file to its hex equivalent and outputs it to either a disk file or an output device. HEXBIN performs the reverse of BINHEX. Together they provide an excellent means to transfer binary files between computer systems. MAKEHEX, converts a binary file to a standard INTEL format hex file and outputs it to either a disk or output device. TRAN1 is an ASCII transfer utility and directs its output to a specified disk file. Finally, DUMTERM1 turns your CP/M system into a dumb terminal for use with a modem or other computer system.

KCC TOOLKIT #1 \$29.95

KCC's products are available for CP/M version 2.0 and higher, and can be shipped on Osborne's single-sided, single-density format. (CP/M is a registered trademark of Digital Research Corporation.)

Please send:

- ____ Copies of KCC's T-PILOT @ \$39.95 ea.
- ____ Copies of LUCIDATA PASCAL @ \$49.95 ea.
- ____ Copies of KCC's TOOLKIT #1 @ \$29.95 ea.

IOWA RESIDENTS ADD 3% SALES TAX

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

Send Check or Money Order to:

KELLER CONSULTING CORP.
BOX 163
VINTON, IA 52349

319-472-2842
319-369-9154

DEALER INQUIRIES INVITED!

d BASICS

Database inventory ideas

David Gute

The purpose of this article is to give beginning *dBASE II* programmers a starting point for an inventory program. A few simple concepts are described that can be tied together to develop the very basics of an inventory. It was written to be more of an educational guide and catalyst for your own personal inventory ideas rather than to provide a full-blown operating inventory program.

This inventory program uses only two short, easy-to-understand modules: **TESTINV.COMD** and **CHANGE.COMD**. They perform the following three simple tasks:

- Add to inventory (add 10 widgets to 476 widgets)
- Subtract from inventory
- Update total part cost per part type (480 gizmos @ \$2.00 per gizmo = \$960.00)

A database named **INVENTOR** (see Table 1) was first **CREATED** and saved on the B drive with fields for part number, quantity on hand, cost per part and total cost (quantity time cost per).

After entering in the data, **INDEX** this database on **PART:NO** to a file

called **INVINDEX**. The sequence will look something like this:

INDEX ON PART:NO TO B: INVINDEX
These commands are rudimentary and are explained in the manual or previous *dBASICS* articles.

Enter in the programs shown in Figures 1 and 2 by using *WordStar's* non-document mode. To run this program, boot up *dBASE II* and type **DO TESTINV**. The program listings have been briefly annotated so you can better understand how they operate.

TESTINV.COMD Instructions

- 1) Uses your **INVENTOR** database and updates the index to **INVINDEX**.
- 2) Sets a switch called 'changing' ON. Everything that follows the 'DO WHILE' statement (3) repeats until the switch is set OFF.
- 3) Everything that follows the 'DO WHILE' statement repeats until the switch is set off.
- 4) Erases the screen.
- 5) Waits for the operator to enter a

FLD	NAME	TYPE	WIDTH	DEC
001	PART:NO	C	008	000
002	ON:HAND	C	006	000
003	COST:PER	N	008	003
004	TOTAL	N	008	002

Table 1

part number, and then stores it to a memory variable called 'NUM'.

- 6) Searches for the part number equal to the number stored at 'NUM'.
- 7) A simple error checking routine. If no record with that part

number is found, an error message is displayed. The operator is given another chance to input another part number or quit.

- 8) If a valid part number is located, the operator is passed on to the CHANGE.CMD routine.

continued

```

* TESTINV.CMD
SET ESCAPE ON
SET TALK OFF
USE B:INVENTOR INDEX B:INVINDEX
*
STORE 'Y' TO changing
DO WHILE !(changing)='Y'
ERASE
?
?
?
ACCEPT 'ENTER PART NUMBER YOU WISH TO INVENTORY' TO NUM
?
?
FIND &NUM
*
IF #=&
  ERASE
  ?
  ? 'NO SUCH PART NUMBER EXISTS. TRY AGAIN OR QUIT (T/Q)?'
  ?
  WAIT TO go
  ?
  IF !(go)='Q'
    RETURN
  ELSE
    LOOP
  ENDIF
ELSE
  ?
  ?
  ?
  ? '      1=CONTINUE'
  ? '      Q=QUIT'
  ?
  ?
  WAIT TO stock
  ?
  ?
  IF !(stock)='1'
    DO CHANGE
  ELSE
    IF !(stock)='Q'
      QUIT
    ELSE
      LOOP
    ENDIF
  ENDIF
ENDIF
ENDDO
RELEASE ALL
QUIT

```

Figure 1

OSBORNE SOFTWARE

Available now!!

RASCAL.COM

A virtuoso data transfer program that forms a bridge between SuperCalc and your data files. Create SuperCalc files using data from MBASIC, CBASIC, dBASEII, WordStar and most other data files. RASCAL converts in seconds data that would take hours to enter manually. The program occupies only 8k on your single density disks. All data is converted, including text! Priced at \$25, this program belongs on your system. Send check to:

SYNERGISTIC SOFTWARE, INC. OF TEXAS

1365 KINGWOOD DRIVE, SUITE 3048
KINGWOOD, TEXAS 77339

Or call (713) 358-7104 for MC
and VISA orders.

INTRODUCING...

**Our mail order
typesetting service.**

Send us your Osborne 1™ discs with appropriate instructions. We will insert the typesetting commands, set your copy on RC paper with our state-of-the-art typesetter and send it to you ready to be pasted up.

INTERFACE TYPESETTING

12595-G N.W. Cornell Rd.,
Portland, OR 97229
(503) 646-9977

2 BASICS

CHANGE.CMD Instructions

- 9) A switch called 'continue' is set ON.
- 10) Decision block time. The operator decides to add or subtract from inventory; the value is stored in memory variable 'hold'.
- 11) Data in database fields 'ON:HAND' and 'TOTAL' are stored in memory variables 'HAND' and 'TOT' respectively. Calculations are performed on these variables later in the program.
- 12) Displays record information on the screen. For example, '@ 3,5 SAY' puts the first character on the third row and fifth column.
- 13) Stores quantity number to be added or subtracted in memory variable 'FLAG'.
- 14) This command line uses a MACRO instruction to take the character string stored in 'FLAG' and convert it to a numeric. (The ACCEPT command in dBASE II stores everything as a character string. Math cannot be performed on character string variables.)
- 15) Addition or subtraction routine.
- 16) 'TOTAL' and 'ON:HAND' are replaced with their new totals. The screen is drawn again for final review.
- 17) Gets rid of all the memory variables.
- 18) 'N' is replaced in memory variable 'continue' in order to exit from the routine.
- 19) As setup by the TESTINV.CMD file, the program continues to run as long as 'changing'='Y'. The program terminates if 'N' is input.
- 20) The file is closed and control is returned to the TESTINV command file.

With a little thought, you should be able to use some of the concepts behind this module and incorporate them into your own inventory

package, or use the programming principles in other dBASE II applications.

David Gute is a Senior Technical Sysgen Analyst at Braegen Corporation.

```

* CHANGE.CMD
SET ESCAPE ON
SET TALK OFF
STORE 'Y' TO continue
DO WHILE !(continue)='Y'
  ERASE
  ?
  ?
  ?
  ACCEPT 'ADD OR SUBTRACT FROM INVENTORY (A/S)' TO hold
  ?
  ?
  STORE ON:HAND TO HAND
  STORE TOTAL TO TOT
  ERASE
  @ 3,5 SAY 'PART NUMBER:'
  @ 3,22 SAY PART:NO
  @ 5,5 SAY 'QUANTITY ON HAND:'
  @ 5,24 SAY ON:HAND
  @ 7,5 SAY 'COST PER PART: $'
  @ 7,27 SAY COST:PER
  @ 9,5 SAY 'PART VALUE TOTAL: $'
  @ 9,26 SAY TOTAL
  ?
  ?
  ACCEPT '      HOW MANY?' TO FLAG
  ?
  STORE &FLAG TO SW
  IF !(hold)='A'
    STORE HAND + SW TO HAND
    STORE COST:PER * SW TO SW
    STORE SW + TOT TO TOT
  ELSE
    IF !(hold)='S'
      STORE HAND - SW TO HAND
      STORE COST:PER * SW TO SW
      STORE TOT - SW TO TOT
    ENDIF
  ENDIF
  REPLACE TOTAL WITH TOT
  REPLACE ON:HAND WITH HAND
  ERASE
  @ 3,5 SAY 'PART NUMBER:'
  @ 3,22 SAY PART:NO
  @ 5,5 SAY 'QUANTITY ON HAND:'
  @ 5,24 SAY ON:HAND
  @ 7,5 SAY 'COST PER PART: $'
  @ 7,27 SAY COST:PER
  @ 9,5 SAY 'PART VALUE TOTAL: $'
  @ 9,26 SAY TOTAL
  RELEASE ALL
  STORE 'N' TO continue
  ?
  ACCEPT 'WISH TO CONTINUE? (Y/N)' TO changing
  ?
ENDDO
RETURN

```

Figure 2



Writers! We've taken the paperwork out of writing. The Osborne™ Personal Business Computer. And WORD·PAC.™

Author Peter DeVries once said, "I love writing. It's the paperwork I can't stand."

The Osborne Personal Business Computer is an outstanding writer's system, because it automates the paperwork of writing. Quickly and easily.

Only \$1795 delivers a complete computer including WORDSTAR® software for extensive word processing. The portable Osborne system fits the work style of writers (you can take it wherever you want), yet the system compares with dedicated word processors costing several times more.

Communications options connect you to a variety of information banks, for research or brainstorming, or for shipping documents electronically, over telephone lines.

And now, the WORD·PAC brings even more efficiency, accuracy, speed and fun to

the writer using the Osborne Computer.

Five packages to check your spelling, analyze your grammar, handle footnoting, indexing, and even arithmetic.

Osborne. The best thing for writing since the invention of royalties.

For your nearest dealer, call (in California) 800 772-3545 ext. 905; (outside California) call 800 227-1617 ext. 905.

OSBORNE
COMPUTER CORPORATION™



Trademarks: WORD·PAC: Osborne Computer Corporation • Spellguard: Innovative Software Applications • Grammatik: Aspen Software Company • Math*: Force Two, Limited • Documate/Plus: The Orthocode Corporation. Registered Trademarks: WORDSTAR: MicroPro International of San Rafael, California • Footnote: Pro/Tem, Inc.

WORD·PAC SPECIAL. \$345 buys you: Spellguard (spelling checker), Grammatik (grammar/style checker), Footnote, Math*, and Documate/Plus (contents/indexer). A \$695 value. Only \$345.

Whoops

Those "whoops" you keep hearing are not cranes trying to take off, but we Osbornites trying to get the information we present to you up to date and accurate. Here's our latest effort:

MISSING IN ACTION: Many of you wondered where your third issue went. We now know: the dead letter office. It seems that labels fell off a number of issues making them undeliverable. We solved the problem by removing the cover varnish. If you received a second and fourth issue, but no third, please write to our circulation department requesting another copy.

SORRY, WRONG NUMBER: We managed to get a phone number wrong in our list of dial-up computers in *Sources* (Dec/Jan). The lady whose phone number it was let us know that *many* of you were trying to get your modem to talk to her. We've since bought her an answering machine. The correct number of the OXGATE Mountain View bulletin board is: (415) 965-4097 and *not* the number shown.

LATE UPDATE: Apparently our notice regarding the delay in the software Upgrade-Pac (*Whoops*, Dec/Jan issue) was missed by some of you. The System Software Package and subscription service have been delayed so we can insert the newest version of *WordStar* (3.4). *Assuming no further changes are necessary*, we should begin delivering update packages to dealers by this summer.

The upgrade package provides the following new features:

WordStar is upgraded to version 3.4.

- *WordStar's* new Column Block Command moves, copies, or deletes a column of text. One use of the command would be to set up "newspaper" style columns of print.
- *MailMerge's* Conditional Printing feature uses commands such as AND, OR, IF, EXCEPT, and several mathematical symbols to create variability in the selection of records or portions of text during *MailMerge*

printing. For example, you could send letters only to those people whose ZIP codes fall into a particular numeric range, or you can code for an extra paragraph to be sent to people living in a certain state.

- Two versions of *WordStar* are provided: one for 52 column and one for 80 column Osborne's.

SuperCalc is upgraded to version 1.12.

- The EXECUTE command is *SuperCalc's* newest and most powerful feature. Execute reads and performs any list of operator specified instructions saving the user from the drudgery on repeating lengthy operations.
- The SuperData Interchange (SDI) program is provided to convert *SuperCalc* files to comma separated value files or *SuperCalc* files to SuperData Format files (and vice-versa in either case).
- The SAVE command is enhanced so a partial range of cells can be saved.
- Memory-mapped video is supported, making the scrolling through a spreadsheet much faster and efficient.
- Several minor program idiosyncrasies have been corrected.

CBASIC is upgraded to version 2.38.

- Several reported problems have been corrected. Minor improvements to CBASIC's operation were made.

CP/M HELP program is upgraded to version 4.1.

- The screen updates are much faster.
- The screen displays are more informative and imaginative. The displays make use of the graphics features on the Osborne 1.

AD GOOF: The Osborne/McGraw-Hill ad appearing in the Feb/Mar issue incorrectly listed two different prices for the book *WordStar Made Easy*. The correct price is \$11.95.

DEC/JAN CALCAID: A number of our readers pointed out a problem with Manny Juan's *SuperCal-endar* article. In the article on page 92 (third column), he asks the user to /Replicate a block. This is not correct. The correct action is the /Copy command. We hope you stumbled across the answer and apologize for any frustrating hours this bugaboo may have caused you.

SMOOTHING OUT THE BUMPS: The "Smoother Scrolling" article of the first issue has seen many changes. So that you know what the current state-of-the-program is, we're including a program listing that reprints the original (corrected, of course). We'd like to thank John Roberts for his double density patches, which we were busily recreating when his version came in the mail.

Smooth Scrolling Take Two

```
;
;
;
; This file contains the locations you
; may modify to change WordStar parameters
; on the Osborne 1 computer.
;
; If assembled without changes, the file
; will create terminal drivers with smooth
; horizontal scrolling and no highlighting.
; Other options may be selected by using the
; EQU statements at the beginning of the
; file.
; All Changes are in boldface type.
;
```



```

; WSMODS.ASM UPDATED JAN 25, 1983
; Updated information is printed in BOLDFACE.
; For double density, change E5xx references to
; E1xx references: e.g. 0E506h to 0E106h
;-----
; Published by the Portable Companion, 1982
; Routines by Thom Hogan, OCC and
; Richard Frank, Sorcim
;-----
;
; DEFINITIONS
;
TRUE EQU 1
FALSE EQU NOT TRUE
;
SMOOTH EQU TRUE ;if TRUE, smooth scrolling implemented
HILITE EQU FALSE ;if TRUE, underlined video selected for hilite
WIDE EQU TRUE ;if TRUE, 128 character width set, else 80
;
CURSOR EQU 0EF5Ah ;location of cursor position in BMMRAM
IOUT EQU 0106h ;location of output routine in WordStar 2.26
ESCAPE EQU 27 ;ASCII code of ESCAPE
SCREEN EQU 0F000h ;location of Osborne screen
;
; TERMINAL PATCH AREA
;
HITE DB 248h ;origin of WordStar terminal patch area
DB 24 ;24 lines on screen
;
WID IF WIDE
DB 128 ;128 columns on screen
ENDIF
WID IF NOT WIDE
DB 80 ;80 columns on screen
ENDIF
;
CLEAD1 DB 2,ESCAPE,"" ;Cursor positioning routine
DB 0,0,0,0,0 ;Room for expansion
CLEAD2 DB 0,0,0,0,0 ;Function not used by Osborne 1
CTAIL DB 0,0,0,0,0 ;Function not used by Osborne 1
CB4FLG DB 0 ;Function not used by Osborne 1
LINOFF DB 32 ;Line offset amount
COLOFF DB 32 ;Column offset amount
ASCUR DB 0,0,0,0 ;Function not used by Osborne 1
;
UCRPOS JMP SMOOTH ;Get cursor position
WCUR
ENDIF
IF NOT SMOOTH
UCRPOS DB 0,0,0C9h ;Not used if terminal emulated
ENDIF
;
DW IOUT ;WordStar output routine
DB 0,0,0,0 ;Reserved bytes

```

Page 1

```

ERAEOL DB 2,ESCAPE,54h ;Erase to end of line sequence
DB 0,0,0,0 ;Room for expansion
LINDEL DB 2,ESCAPE,52h ;Delete line sequence
DB 0,0,0,0 ;Room for expansion
LININS DB 2,ESCAPE,45h ;Insert line sequence
DB 0,0,0,0,0,0 ;Room for expansion
IVON DB 2,ESCAPE,29h ;Highlighting ON sequence
DB 0,0,0,0 ;Room for expansion
IVOFF DB 2,ESCAPE,28h ;Highlighting OFF sequence
DB 0,0,0,0 ;Room for expansion
TRMINI DB 8,'O C C -1'
TRMUNI DB 8,'O C C -1'
INISUB JMP ITERM ;Initialize terminal routine
UNISUB JMP XTERM ;End of session terminal routine
USELST DB 1 ;Enable char in last position to show
DB 0,0,0 ;Reserved bytes for expansion
DELCUS DB 5 ;Delay after cursor set
DELMIS DB 3 ;Delay after other functions
;
; The following section contains the primary code which implements
; smooth scrolling on the Osborne 1. Be careful when modifying this
; section.
;
MEMAPV IF SMOOTH
DB 1 ;Use memory-mapped video
MEMADR DW SCREEN ;Screen location
ENDIF
IF NOT SMOOTH
MEMAPV DB 0 ;Use terminal drivers
MEMADR DB 0,0 ;No memory address needed
ENDIF
;
HIBIV IF HILITE
DB 80h ;Use underline
ENDIF
HIBIV IF NOT HILITE
DB 00h ;No highlighting
ENDIF
HIBCUR DB 80h ;cursor set on self
CRBLIV DB 0FFh ;blink cursor on self
ZAFACIN DW 0 ;Not needed for Osborne 1
RUBFXF DB 0 ;Not needed for Osborne 1
RUFIXER DB 0 ;Not needed for Osborne 1
;
UCNSTA JMP SMOOTH ;get console status from BIOS
UCONI JMP INCON ;get console input
UCONO JMP OUTCON ;send console output
ENDIF
IF NOT SMOOTH
UCNSTA DB 0,0,0C9h ;no special status routine
UCONI DB 0,0,0C9h ;no special input routine
UCONO DB 0,0,0C9h ;no special output routine
ENDIF

```

Page 2

```

SWIN DB 0C9h,0,0,0,0,0 ;no special before video routine
SWOUT DB 0C9h,0,0,0,0,0 ;no special after video routine
DEL1 DB 3 ;short delay
DEL2 DB 9 ;medium-short delay
DEL3 DB 25 ;medium-long delay
DEL4 DB 64 ;long delay
;
; SPECIAL ROUTINES FOR OSBORNE 1
; Not part of MicroPro patch items
;
ORG 02D6h ;origin of special patch area
;
; Initialization of terminal routine
;
ITERM MVI A,26 ;clear screen code in A
CALL UCONO ;send it
RET ;done
;
; Finalization of terminal routine
;
XTERM RET ;just get out
;
; Input from console routine
;
INCON JMP 0E509h ;get a character
MOV A,C ;put it in A where WS can use it
RET ;done
;
; Output from console routine
;
OUTCON MOV C,A ;get it in C where CP/M can use it
JMP 0E50Ch ;send it and return directly
;
; Position cursor by brute force in BMMRAM
;
WCUR LXI H,0F000h ;put screen start in HL register
DAD D ;add position of cursor in DE to HL
SHLD CURSOR ;save new cursor position
RET
;
; Special automatic scrolling routines
; These routines are coded in Z80 assembly language,
; so we'll just patch in the hex values at this point.
;
X1BB4 DB 0C5h,0D5h,0E5h,0AFh,018h,011h
X30D2 DB 0C5h,0D5h,0E5h,03Ah,01Eh,037h
DB 0D6h,02Ah,030h,001h,0AFh,0FEh
DB 04Ch,038h,002h,03Eh,04Ch,0C6h
DB 020h,032h,019h,003h,021h,016h
DB 003h,0CDh,01Bh,003h,0E1h,0D1h
DB 0C1h,0C3h,0BBh,01Bh,01Bh,053h
DB 020h,020h,000h,07Eh,0B7h,0C8h
DB 023h,0E5h,0CDh,0E2h,002h,0E1h
DB 018h,0F5h,000h,000h

```

Page 3

```

; For those who must have the code that the bytes of
; data represent, here it is:
;
; X1BB4: proc
; PUSH B I PUSH D I PUSH H
; XOR A ;reset bias
; JR :2
;
; X30D2: PUSH B I PUSH D I PUSH H
; LD A,0371Eh ;get WordStar's column
; SUB 52-10 ;see if past 42
; JRNLC :1 ;if past 42
; XOR A ;reset to far left
; :1 CMP 128-52
; JRC :2 ;if way before right edge
; LDK A,128-52
; ADD A,' ' ;position bias
; STO A,:X
; LDK HL,:S
; CALL OSTR ;output screen positioning
; POP H I POP D I POP B
; JMP 1BBBh ;back to WordStar
; :S: DB ESCAPE,'S'
; DB ' ' ;y position
; :X: DB ' ' ;x position
; DB EOS ;end of sentence
; OSTR: LD A,[hl]
; OR A
; RZ ;if EOS
; INC HL
; PUSH HL
; CALL OUTCON ;output a byte
; POP HL
; JR OSTR ;do it till done
;
; This code will assemble with Sorcim's ACT I assembler
;
;
; IF SMOOTH
; ORG 1BB4h ;input prompt/command response in WordStar
; CALL X1BB4
;
; ORG 30D2h ;input data character
; JMP X30D2
; ENDIF
;
; END
;
; Note: If smooth scrolling action is selected, the automatic
; horizontal scrolling feature should be turned off using SETUP.
;

```

Page 4

80 and 100 COLUMN VIDEO

THE RESEARCH ASSOCIATES introduces a video system as an add-on to the Osborne 1. The system will provide the versatility of an 80 or 100 column video screen format on an external monitor without loss of Osborne 1's video capabilities or speed.

- ★ The **TRA** video system enhances Osborne 1's video capabilities by providing:

80 character by 24 line window into a 128 character by 32 line video format

100 character by 24 line window into a 128 character by 32 line video format

soft scrolling

reverse video and blinking of the video display

composite and TTL video monitor outputs

- ★ Connection is easily made by any Osborne 1 user. Simply plug into the IEEE port and into your external monitor.

- ★ Parallel printer connection is not forfeited. Plug your printer into the TRA parallel port and begin normal printer operation.

- ★ The operating system set up procedure is easily accomplished by a one-time, automatic disk configuration process. The driver software is supplied by THE RESEARCH ASSOCIATES.

SPECIAL INTRODUCTORY PRICE OF \$300

(plus \$6.00 shipping and handling)

30-Day Money Back Guarantee

Information and specifications on **THE RESEARCH ASSOCIATES'** video system are available exclusively through

MicroMarketers, 17 Long Sought for Pond Rd., Westford, MA 01886 (617) 692-4142

Osborne 1 is a trademark of Osborne Computer Corp.

The Ultimate For dBASE II Users



dNAMES™

DOCTORS REALTORS CONTRACTORS DENTISTS
LAWYERS MAIL ORDER SERVICE COMPANIES CONSULTANTS

If you deal with people, these are features that make dNAMES™ invaluable.

- A user friendly extensive reference and master mailing program designed to organize all your lists of customers, suppliers, sales leads, acquaintances, etc.,...
- Totally menu driven with error checking requiring a minimum of training and effort thus insuring accurate and efficient data entry taking advantage of the power of dBASE II (2.3B).
- Pick from up to 40 user supplied classification names, enabling you to designate each record in up to six different categories.
- Option of five report formats: single column or three across AVERY 33 labels, single line, 2-6 lines, or Mailmerge data file. These are based on your choice of specifications: name, classifications, date entered and date updated, a special six-digit code field, and zip code, sorted on your choice of fields in seconds.
- Automatically checks file first to see if that record is already on file; if so, it displays all current information (including date entered and last update) from up to three different files. You can then skip, edit, add a record, delete or recall, mark for future transfer, or even address an envelope.
- Immediate display of all information in a record by entering either all or part of record name or phone number.
- Keeps track of name, salutation, address, city, state, zip code, phone number, classifications, entry date, last update, six character code and up to four lines of comments, all dispersed into three files for speed and efficiency. A special capability affords you the option of using part of the first line of the comments for an additional line to be used when printing labels e.g., four line addresses or an attention line.
- Transfer old or unused records to an alternate backup disk. It also supports multiple data drives.
- Incorporates the most sophisticated edit program available for dBASE II. No more searching for individual records to edit. Display for instant reviewing or editing only records that fall within your choice of ranges.
- Although the uses for this program are endless, source code and documentation are included providing a base for limitless additional customizing.

dNAMES only \$129.00

(Available on most popular computer and IBM/PC. For double density Osborne computers.)

Ashton-Tate	dBASE II	\$469.00
Fox & Geller	dGRAPH-new!	219.00
	QUICKCODE	219.00
	dUTIL	65.00
Anderson-Bell	Abstat	369.00
dBASE II applications	DBHELP (on line help)	20.00
	Payroll	350.00
	Job Costing	350.00

Inquire about other dBASE business applications.
Simple Software PACMAX, CUTOFF, NYSE and SNAKES.
4 adding CPM GAMES for the price of 1. **Only \$39.00**

Add \$3.00 shipping

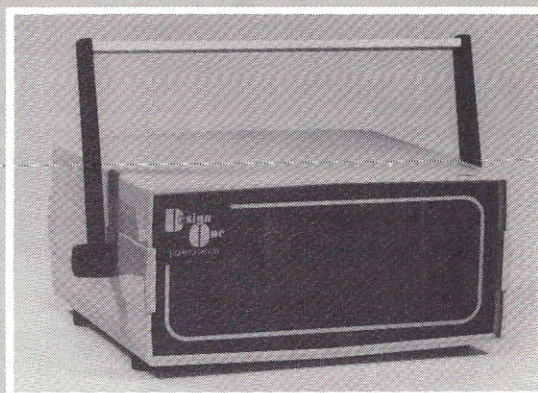


DATA BASED SOLUTIONS
P.O. Box 9797, San Diego, CA 92109

TECHNICAL HOTLINE
619-272-5556
CONSULTATIONS AVAILABLE
ORDER DESK ONLY
619-272-5874

"Osborne 1* Users"

Take Advantage of our Special on the hard disk Osborne 1 users recommend. Design One Immediate delivery



5 meg	10 meg	15 meg	20 meg
\$2295	\$2495	\$2895	\$3295

Offer Expires 6/15/83

1 yr. Warrantee on drive & Power supply-90 days on Controller

*Osborne is a trademark of Osborne Computer Corporation

PAYMENT—Cashiers Ck/M.O./Bank transfers
Mastercard/Visa accepted
California res. add 6% tax
Allow 2-3 weeks for personal checks

Puzzler

Thirteen hidden errors

Brad Baldwin

There are thirteen hidden problems with Manny Mogul's *MailMerge* file. How many can you find? It won't be easy, so I'll give you two hints:

1) The thirteenth error is actually an undocumented *MailMerge* bug that creates a major problem in printing Manny's individually-fed invoices. The fix is rather clever (ahem) and involved adding a dot command somewhere in the file.

2) Some of the problems can only be discovered by reading, and some only by "hands-on" use of *MailMerge*.

The lines are numbered so we can reference them, and the flag field characters were added to aid in your sleuthing. The page length was set at 33 to keep you from wasting too much printer paper in your research.

```
1 .OP <
2 .MT <
3 .MB 0 <
4 .PL 33 <
5 .DF PUZZLE.DTA M
6 .RV NAME,THEATRE,ADDR1,CITY,STATE,ZIP#,NAME2 M
7 .CS M
8 .DM &NAME& of &THEATRE& M
9 .DM &CITY&, &STATE& M
10 .DM M
11 .SV DATE, February 8, 1983 M
12 .AV " Movie title: ", MOVIE M
13 .AV " # Days shown: ", TIME M
14 .AV " Gross ticket sales: $", GROSS M
15 .AV " Payment due: $", DUE M
16 <
17 &DATE& <
18 <
19 &NAME& <
20 &THEATRE& <
21 &ADDR& <
22 &CITY&, &STATE& &ZIP#& <
23 <
24 Dear &NAME2&: <
25 <
26 Our auditors indicate that &MOVIE& was leased to <
27 you for &TIME& days and earned $&GROSS& in ticket <
28 sales. Please find enclosed a bill in the amount <
29 of $&DUE&. <
30 <
31 Sincerely, <
32 <
33 <
34 <
35 Manny Mogul <
36 Motion Picture Distributors Inc. <
37 <
38 .PA <
39 -----P
40 <
41 _ <--- cursor position when file was saved .
```

PUZZLE.DAT File

```
42 Billy Bob Bijou,Bijou Theater,1 Main St., <
43 Yahoo,CA,98765,Mr. Bijou <
44 Susan Celluloid,Swank Cinema,Inc.,5000 Deluxe <
45 Ave,Hollywood,CA,91234,Ms. Celluloid <
46 General Manager,Century Cinema,250 West St., <
47 Any Town,CA,,Dear Sir or Madam <
48 .
```

Hang onto your answers—we'll publish the solution in next month's issue.

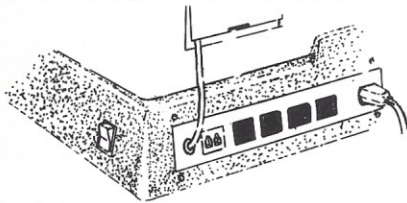
The safer, faster, easier to see and use Osborne 1™

Lightning induced and static discharge often surge along power and telephone lines and when they do...ZAP! These daily occurrences, lasting only fractions of a second, will destroy microcircuits and even erase entire memory blocks.

Radio and TV broadcast signals, fluorescent lights, other computers and office equipment can also wipe out data and generate false input/output.

System SYNERGIZER is a complete enhancement and protection system for your Osborne 1 and peripherals. As well as organizing your system, it provides protection from potentially disastrous transient line voltage spikes and RF interference.

Molded in color keyed, high impact ABS, the base unit provides secure and ergonomic positioning of the CPU and keyboard plus 5 protected power outlets. Includes an easily accessible master-system switch, circuit breaker and power-on indicator LED and optional* RF suppression for your modem.



The extra quiet, 23 cfm fan/deck unit eliminates internal heat build-up, by cooling and filtering air into the CPU cabinet. Simply and quickly locates in place of the removable air-vent cover, it safely supports your monitor at the correct viewing angle and height.

Base/power—filter \$185.00
Base only \$59.95

Fan/deck (can be used with either base unit) \$109.00

Shipping & handling \$7.50 per unit

RF attenuation* option for modular connection to telephone line (installed in base/power-filter unit only) \$29.95

SETUP and speed up as easy as 1,2,3.

Using the CP/M™ utility SETUP, you can create and assign powerful commands to the 10 Special Function Keys and configure each program...but how will you keep track of all the variables? That's 60, just for your basic software pack alone.

CTRLplus keyboard reminders put the logged SETUP at your fingertips. No mistake! Just place in the recess on the keyboard (obviously designed for it) and rotate to display SFK prompts and configurations for up to 4 programs.

CTRLplus 1 for WordStar™, SUPERCALC™, CBASIC™/MBASIC™ and CP/M™ \$19.95

CTRLplus 2 is for dBase™, Personal Pearl™ and AMCALL™, plus space for a program of your choice \$19.95

CTRLplus 3 can be configured for any OSBORNE, personal or independent vendors' CP/M™ software \$19.95

Shipping & handling \$1.75 each

Has the Wizard of OS hexed your eyesight yet?

Micro GREEN SCREEN is a professional quality non-glare, non-reflect lens which intensifies and concentrates the screen image even better than the latest "green" factory releases.

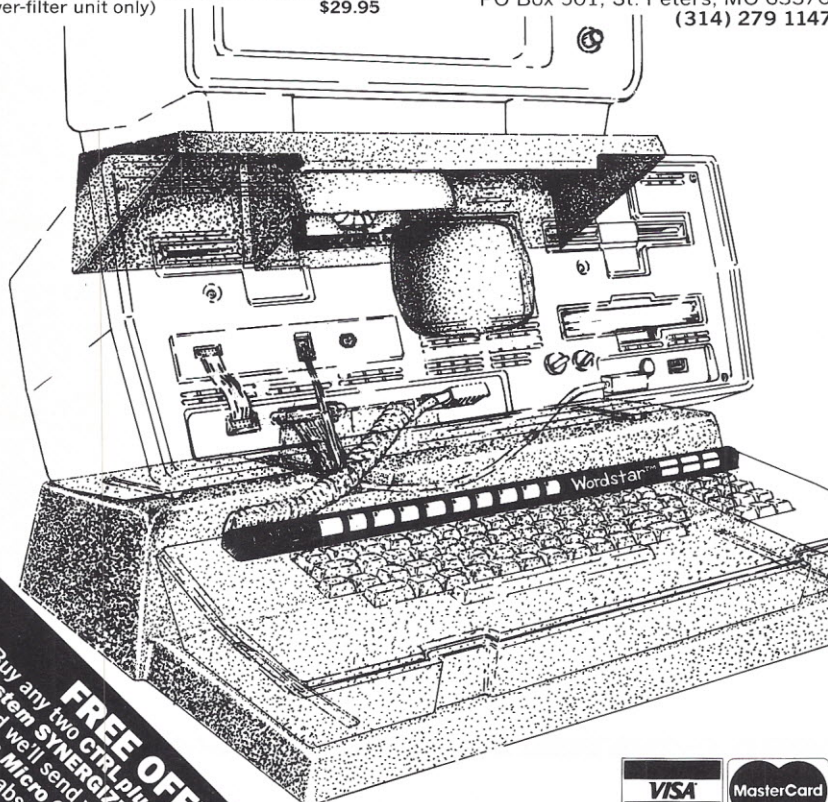
Molded in optical green acrylic, with its own self adhesive fasteners, it takes just 3 minutes to fit, but the difference it makes is truly incredible! Really a sight for sore eyes, and a must if you've got the 80 column up-grade. \$18.95
Shipping & handling \$1.50

Dealer incentive plans available

Micro-Synergy

Making PC's work better!

PO Box 501, St. Peters, MO 63376
(314) 279 1147



FREE OFFER
Buy any two CTRLplus reminders or a System SYNERGIZER before April 30 and we'll send you a CTRLplus or a Micro GREEN SCREEN absolutely FREE... your choice!



VISA AND MASTERCARD orders must include complete number and expiration date. Missouri residents add 3.625% sales tax. All domestic orders accompanied by cash, check or money order are shipped prepaid. Foreign orders must be prepaid and are shipped freight collect.

OSBORNE-1 and COMM-PAC are trademarks of Osborne Computer Corporation. CP/M is a trademark of Digital Research. WORDSTAR is a trademark of MicroPro International. CBASIC and MBASIC are trademarks of Microsoft. SUPERCALC is a trademark of Sorcim Corp. AMCALL is a trademark of MicroCall Services.

Advertisers' Index

A-1 Computers	28
Accent Graphics	18
Adam, Inc.	52
AJH Systems	94
Apogee Designs Ltd.	78
Applied Creative Technology	15
Austin Computer	100
B.L. & W.	101
Bottom Line	64
Business Master	12
Business Micro Products	95
C.I. Software	101
Computer Cannery	90
Continental Software	17
Cornerstone Software	23
Contact Enterprises	79
Creative Computing Products	3
Data Access	22
Data Based Solutions	108
Data Flow	86
Data Sources	10
Davong Systems	72
Dexter & McGee	93
Digital Marketing	5
Dipco	14
DiscoTech	100
Discount Software	29
DTC	7
Dynacomp	41
Easy View	91
Escon	71
F.O.G.	46
Fox & Geller	65
F.Y.I.	I.B.C.
Gamma Research	11
John Gaudio & Associates	76
ICR Futuresoft	39
Innovative Software	25
Interface Typesetting	103
Ironwood	92
JMM Enterprises	B.C.
JRT Systems	1
Keller Consulting	102
Lawrence Woodworks	16
Leading Edge	I.F.C.
Mega Byte	58
Micro Art Programmers	52
MicroComputers of New Orleans	29
Microhouse	19
Micro Methods	86,82
Micro Research	92
Micro Synergy	110
Micro Ventures	46
Mindware	13
Orthocode	95
Osborne Computer Corporation	73, 88, 89, 105
Portable Software	30, 31
Portable Companion	97
Pro Micro	97
Ramsoft	26
Relational Systems	98
Research Associates, The	108
R & L Research	93
Robonics	24
Rocky Mtn. Data	111
Rocky Mtn. Software	56 & 57
Scientific Technologies	111
Selectone	96
SGW	6
Softquest, Inc.	75
Software Store, The	20
Software Supermart	85
Software Toolworks	16
Sorcim	27
Strobe	40
Sudden Software	87
Swan Software	77
Synergistic Software	103
Tanstaaf!	83
TNW	84
Transtar	2
Trantor	8
Westwind	94
Wholesale Suppliers	21

Disclaimer: Osborne Computer Corporation does not endorse products that are advertised in this publication, nor are the claims in the advertisements checked for misrepresentations or misleading information. All specifications listed for advertised products are those of the advertiser, not of Osborne Computer Corporation. As always, be careful when deciding which items you want to purchase.

If you encounter problems with a product, first attempt to resolve the dispute with the supplier. If you continue to have problems, please WRITE to us, describing in full what has happened and what attempts you've made to resolve the problem. While we can't promise that we'll settle the matter for you, we do regard the advertising in this publication as a service to our readers, and therefore, we do closely monitor complaints and criticisms concerning our advertisers.



Scientific Technologies Co.

JOBS-IN-PROGRESS \$125.00

Lists all equipment for a complete job, track when ordered, P.O. numbers, when required at shop, when receive, when required to job, and when invoiced. Track shop labor, Engineering, Travel, Perdiem, Freight expense, Complete cost accounting verses Estimated cost. Includes simple sort routine.

JOBS-IN-PROGRESS SUMMARY

\$25.00

Print out compiled reports of all Jobs in Progress, profit tracking, Jobs in Progress, profit tracking, Work-in-process figures, backlog, Estimated profit.

BID CALCULATION

\$100.00

List all items on bid including equipment labor, engineering, travel, perdiem, and freight. Change labor rates, engineering rates, perdiem, travel, freight, and percentages of profit on summary worksheet. Print out three different options for customer-ready quotations. Includes simple sort routine.

SOUND SYSTEM

ENGINEERING

\$75.00

Calculate sound system parameters based on room constants. Calculates room volume, surface area, reverb time, EAD, critical distance, and much more.

Sci Tec

1512 Elmendorf Dr.
Anchorage, AK 99504
(907) 333-6103

(Dealer Inquiries Invited)
\$2.00 for postage

next time

Coming up in the June issue:

- * Programming the special function keys for television and film scriptwriting
- * A peek into the Hollywood scene where the Osborne 1 is cutting production budgets and increasing efficiency
- * A 3-d bar graph program
- * Answers to the most frequently-asked questions on MBASIC
- * And, a few other surprises...

many items in stock

**ORDER NOW
505 / 294-8856**

the OZMOD

\$39.95

Inexpensive, reliable video adapter for use with the Osborne 1™ Use any standard monitor as an external display.

the OZMOD RF

\$74.95

Allows any home TV set to be used as a display for the Osborne 1. Set the transmitter near the TV set, no installations or connections.

the CTADAPTER

\$59.95

Popular parallel printer adapter, allows use of any parallels configured Epson or IDS printer from the IEEE port of the Osborne 1. Specify Epson or IDS when ordering.

**** NEW ** NEW ** NEW ** NEW ** NEW ** NEW ** NEW ** NEW ** NEW**

THE GAMESTYX

\$49.95

The original joysticks for the Osborne 1. Furnished complete with demo action game programs. Play the games provided or program your own.

**THE EXCLUSIVE DISTRIBUTORS
FOR ALL CTA PRODUCTS**

Dealer inquiries welcome

ROCKY MOUNTAIN DATA

9004 MENAUL, NE □ ALBUQUERQUE, NEW MEXICO 87112 □ 505/294-8856

Sources

The following is a listing of some of the manufacturers of business and financial software for the Osborne format. Write to the manufacturer or distributor for a complete catalog of business programs and a list of dealers in your area. More information on business programs can be gleaned from advertisements in this magazine and other computer publications.

The Bottom Line
Elm Street
Milford, NH 03055

BusinessMaster Inc.
4317 Sea Bright Drive
Carlsbad, CA 92008

Computronics
50 N. Pascack Road
Spring Valley, NY 10977

Continental Software Co.
11223 South Hindry Avenue
Los Angeles, CA 90045

Cornerstone Software
P.O. Box 5151
San Jose, CA 95150

Dataflow
1200 S. Military Highway
P.O. Box 13205
Chesapeake, Virginia 23325

Discount Software
6520 Selma Avenue, Ste. 309
Los Angeles, CA 90028

Dynacomp, Inc.
1427 Monroe Avenue
Rochester, NY 14618

Ironwood
115 N. First Street
Minneapolis, MN 55401

Learning Shack Inc.
17981-J Sky Park Circle
Irvine, CA 92714

Micro-Art Programmers
173 Birch Avenue
Cayucos, CA 93430

Modular Tax
P.O. Box 3361
Stamford, CT 06905

Rocky Mountain Software Systems
1280-C Newell Avenue, Suite 147
Walnut Creek, CA 94596

The Software Supermart
P.O. Box 16174
Irvine, CA 92714

The Software Toolworks
14478 Glorietta Drive
Sherman Oaks, CA 91423

"Very useful and worthwhile program... remarkable efficiency... excellent documentation... 'friendly' atmosphere... search a large amount of data in a short amount of time."

— Osborne Newsletter, Aug. '82

"SUPERFILE... the most user friendly practical file management program on the off-the-shelf software market today!"

— Software Retailing Magazine, Nov. '82.



Highlights

ENTRIES

- + Created from your WordStar® files
- + Free format — Anything you type!
- + Up to hundreds of pages each
- + 5,000 per 5¼" double density floppy

KEY WORDS

- + Up to 250 to cross-index each entry
- + Up to 64 characters long each
- + Up to 3,000 words, and 32,000 integers per data base

SEARCH/RETRIEVAL

- + Link up to 64 key words with "and," "or" and "not."
- + Search 100 entries per second
- + Access data contained on up to 255 disks per data base
- + Send output to screen, disk or printer

UTILITIES

- + Alphabetize free-format material
- + Interface with Mail-Merge® for custom letters
- + Combine many files together
- + Split large files into smaller ones
- + Change characters within a file

dBase II® Tough?

SUPERFILE™ Makes Information Management Easy!

- ★ **No programming**, screen generators or "computerese"
- ★ **No "fields"** to restrict the order or content of your data
- ★ **No "forms"** to restrict the size or shape of your data
- ★ **No risk** with our MONEY BACK GUARANTEE

SUPERFILE is a totally **new** and **unique** concept in information management. SUPERFILE will make your information **productive** in ways you never thought possible.

Businesspeople, Doctors, Lawyers, Scientists, Researchers, Students — **whatever your particular application** — create data bases with all your text information; filing cabinet records, lead lists, correspondence, patient/client histories, case studies, journal abstracts, notes, memos, even your thoughts and ideas. **The only limits are your imagination!**

SUPERFILE's **easy to follow** screen prompts and **award winning** operators manual let both beginning and experienced computer users make information management **trouble free**.

We're so confident that SUPERFILE will meet your information management needs that we guarantee your **complete satisfaction or you get your MONEY BACK!**

Only \$195. See SUPERFILE today at your local computer dealer. Or for immediate delivery with MC/VISA, COD or PO# **call now toll free 1-800-531-5033**. Inside Texas and International 1-512-346-0133.

JMM Computer Peripheral Accessories for Osborne™...

These RS232C Serial Cables are especially designed to interface the Osborne 1™ computer system to the various serial devices used in the computer industry.

The Centronics printer cable allows the use of the IEEE-488 port as a centronics conformal interface for printers. This cable is 5' long and avoids the need for a serial to parallel interface in the printer.

The IEEE-488 adaptor cable provides the standard IEEE-488 interface connection to the Osborne 1™ computer.

JMM Enterprises manufactures and distributes quality interface products for the Osborne 1™. We provide Monitors, Printers, and STROBE™ Plotters. An EXMON adapter is also available for your HP-85.

Mastercard & Visa Accepted

The EXMON external monitor adapter is designed for the Osborne 1™ computer system, and enables the use of any standard video monitor with the Osborne 1™ computer.

A coaxial type video cable is required for the high data rates transmitted by the Osborne 1™. This quality cable enhances the display.

The EXMON II is a combination package and includes the EXMO and a UHF modulator. This allows the use of television sets as monitors without "hard wire" connections to the television set.

Padded carrying case to protect and ease handling and carrying.



The KEYBOARD EXTENDER cable is intended to increase the freedom of movement for the keyboard of the Osborne 1™. This cable plugs into the Osborne 1™ keyboard connector and then the keyboard cable plugs into the other end. The standard length is 24".

Osborne 1 is a trademark of the Osborne Computer Corporation

JMM
enterprises, inc.

See Us At



COMDEX™/SPRING '83
April 26-29, 1983
Georgia World Congress Center and
The Atlanta Apparel Mart
Atlanta, Georgia

115 Battersby Street
Enumclaw, Washington 98022
(A Seattle suburb)
U.S.A.

(206) 825-1637

These products are in stock at local dealers. You may contact JMM directly for assistance. Overseas shipments are no problem.